This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

Sciences Library

CALIFORNIA STATE MINING BUREAU,

A. S. COOPER, STATE MINERALOGIST.

CATALOGUE

OF THE

STATE MUSEUM OF CALIFORNIA, VOL. 5,

BEING THE

COLLECTIONS MADE BY THE STATE MINING BUREAU,

FROM SEPTEMBER 1, 1890, TO MARCH 30, 1897.

SACRAMENTO:
A. J. JOHNSTON, : : : : : SUPT. STATE PRINTING.
1899.

264235

OXFORD LIBRARY

MUSEUM CATALOGUE.

12001. **Hessite** (telluride of silver). Keystone Mine, Carson Hill, Calaveras County, California. H. W. Fairbanks. September 1, 1890.

12002. **Aragonite** (carbonate of calcium). Tolenas Springs, Solano County, California. September 1, 1890.

12003. **Gypsum** (hydrous sulphate of calcium). Ravenna, Los Angeles County, California. J. Robertson. September 1, 1890.

12004. **Gold Quartz.** Atherton Mine, Tioga District, on the divide between Mono and Tuolumne Counties, California. E. E. Haft. September 1, 1890.

12005. **Gold Quartz,** showing free gold. Sierra Buttes Mine, Sierra County, California. From the Company. September 1, 1890.

12006. **Epidote** crystals (silicate of aluminum, iron, and calcium) on a group of Quartz Crystals. South side of Mount Hoffman, Mariposa County, California. George E. Sprague. September 1, 1890.

12007. **Garnet**—Almandite (silicate of aluminum, iron, calcium, etc.). South side of Mount Hoffman, Mariposa County, California. George E. Sprague. September 1, 1890.

12008. **Antimony Ore**—Stibnite. Greenhorn Creek, twenty miles southwest from Kernville, Kern County, California. A. Blanc. September 1, 1890.

12009. **Sphalerite** (sulphide of zinc) on Calcite. La Danta Concession, Cholotecas, Honduras. Edward Hooper. September 3, 1890.

12010. **Copper**—Native, in Quartz with Melaconite. Satellite Mine, Calaveras County, California. J. Z. Davis. September 3, 1890.

12011. **Asbestus** (silicate of magnesium, calcium, aluminum, iron, etc.). America Excelsior Consolidated Mine, Goodyear's Bar Creek, Sierra County, California. Robert Stuart. September 3, 1890.

Two feet wide at a depth of twenty feet, where sample was taken.

12012. **Pistol** of English make, and said to have been used in the defense of Los Angeles against the United States forces under Commodore Stockton, August 12, 1846. Benj. Hill. September 3, 1890.

12013. **Indian Stone Ring,** carefully finished. Santa Catalina Island, Los Angeles County, California. Benj. Hill. September 3, 1890.

12014. **Pilinite** (hydrous silicate of aluminum, calcium, and lithium), on a bowlder of quartz and dolomitic calcite. New Almaden Mine, Santa Clara County, California. J. B. Randol. September 11, 1890.

See No. 11956.

12015. **Oregon Crab-Apple** (Pirus rivularis), California wood. Crescent City, Del Norte County, California. R. W. Miller. September 11, 1890.

12016. **Mineral Paint**—Hematite. Santa Rosa, Sonoma County, California. A. W. Dana. September 11, 1890.

12017. **Gold Quartz,** showing free gold. Cerros Island, Mexico. Mrs. C. Wilson. September 12, 1890.

GENERAL BOOKBINDING CO.
77 447ST 55 005 BB 2 2007
QUALITY CONTROL MARK

12018. **Chromic Iron.** Calistoga, Napa County, California. L. W. Fee. September 12, 1890.

12019. **Iron Ore**—Magnetite. Junction of the McCloud and Pitt Rivers, Shasta County, California. Large body of ore and an abundance of limestone. William P. Miller. September 12, 1890.

ASSAY:

Iron	69.00
Silica	15.00
Sulphur	.0018
Phosphorus	.0025

12020. **Clay**—refractory, thought to be suitable for fire brick. Mount Cliff, Agua Caliente, Sonoma County, California. L. W. Mayer. September 15, 1890.

12021. **Wall Rock**—Siliceous slate. Cloud Mine, Angel's, Calaveras County, California. Otto Dolling. September 15, 1890.

12022. **Silicified Wood.** Found in large quantity imbedded in an ancient lava flow, on Atka Island, Aleutian Archipelago, Alaska, the westernmost land of the United States. Captain George Ball. September 19, 1890.

12023. **Gold**—224 grains. Chapman & Fisher Mine, Secs. 19–29–30, T. 33 N., R. 10 W., near Junction City, Trinity County, California. September 19, 1890.

12024. **Gold**—130 grains. Ward Mine, Secs. 10–11, T. 33 N., R. 10 W., Trinity County, California. September 19, 1890.

12025. **Gold Quartz.** Santa Cruz Mine, near Robinson's Ferry, Calaveras County, California. September 29, 1890.

12026. **Gold Quartz.** Harrison & Morton Mine, south side of Tuolumne River, Tuolumne County, California. September 29, 1890.

12027. **Gold Quartz.** Burgess Mine, Calaveras County, California. September 29, 1890.

12028. **Gold Quartz.** Reeves Mine, Amador County, California. September 29, 1890.

12029. **Gold Quartz.** Amador Mine, Amador County, California. September 29, 1890.
Shows intruding wedge-shaped masses of slate.

12030. **Gold Quartz.** Hardenburg Mine, south of Jackson, Amador County, California. September 29, 1890.

12031. **Gold Quartz.** Great Eastern Mine, Amador County, California. September 29, 1890.

12032. **Gold Quartz.** Caucasian Mine, Amador County, California. September 29, 1890.

12033. **Gold Quartz.** Webster Mine, Jacksonville, Tuolumne County, California. September 29, 1890.

12034. **Gold Quartz.** White Oak Mine, twenty-two miles east of Coulterville, Mariposa County, California. September 29, 1890.
The vein is in a granite formation.

12035. **Wall Rock**—Hanging wall, slate with pyrites. Webster Mine, Tuolumne County, California. September 29, 1890.

12036. **Gold Quartz.** McCann Mine, Whisky Hill, Tuolumne County, California. September 29, 1890.

12037. **Auriferous Vein Matter.** "Sleiger Lode," the continuation of the "Mother Lode" in Placer County, six miles south of Colfax, California. September 29, 1890.

12038. **Talc**—Green. Calaveras Consolidated Mine, Robinson's Ferry, Calaveras County, California. September 29, 1890.

12039. **Auriferous Vein Matter.** Last Chance Mine, Carson Hill, Calaveras County, California. September 29, 1890.

12040. **Quartz Breccia.** Croppings of the Kennedy vein, Jackson, Amador County, California. September 29, 1890.

12041. **Chlorite Schist.** Petaluma, Sonoma County, California. R. G. Skinner. September 29, 1890.

12042. **Wall Rock**—Slate, contorted or crumpled. Hanging wall of the Calaveras Consolidated Mine, Robinson's Ferry, Calaveras County, California. September 29, 1890.

12043. **Gold Quartz.** Calaveras Consolidated Mine, Robinson's Ferry, Calaveras County, California. September 29, 1890.

12044. **Talc,** on Quartz. Gover Mine, Amador County, California. September 29, 1890.

12045. **Gold Quartz,** showing free gold. Union Mine, Calaveras County, California. September 29, 1890.

12046. **Wall Rock.** Hanging wall of the Josephine Mine, Bear Valley, Mariposa County, California. September 29, 1890.

12047. **Wall Rock.** Foot wall of the Josephine Mine, Bear Valley, Mariposa County, California. September 29, 1890.

12048. **Wall Rock** of the Gold Cliff Mine, Angels Camp, Calaveras County, California. September 29, 1890.

12049. **Quartz**—Grooved and polished, apparently from the movement of the vein or formation. Found on the surface, two miles from Mokelumne Hill, Calaveras County, California. September 29, 1890.

12050. **Wall Rock.** Foot wall of Virginia Mine, near Coulterville, Mariposa County, California. September 29, 1890.

12051. **Regulus,** first melting from the ore (sulphide of antimony). Iyo, Japan. J. Kikuchi. September 29, 1890.

12052. **Auriferous Pyrite.** Golden Queen Mine, Forbestown, Butte County, California. Norton & Eckman. September 30, 1890.

12053. **Chromic Iron.** Pentz, Butte County, California. Norton & Eckman. September 30, 1890.

12054. **Iron Ore**—Limonite. Pentz, Butte County, California. Norton & Eckman. September 30, 1890.

12055. **Marble.** Pentz, Butte County, California. Norton & Eckman. September 30, 1890.

12056. **Asbestus.** Forbestown, Butte County, California. Norton & Eckman. September 30, 1890.

12057. **Quartz** (probably petrified wood), curiously corrugated and twisted. Butte County, California. Norton & Eckman. September 30, 1890.

12058. **Clay**—Pipe clay. Olive District, near Oroville, Butte County, California. Norton & Eckman. September 30, 1890.

12059. **Gold Quartz,** rich in free gold. Gallagher Mine, Kimshew District, Butte County, California. Norton & Eckman. September 30, 1890.

12060. **Silver Ore** (argentiferous cerussite). Minerva Mine, Sylvania District, Inyo County, California. Robert Leschinske. September 30, 1890.

12061. **Silver Ore** (argentiferous cerussite). Cleopatra Mine, Sylvania District, Inyo County, California. Robert Leschinske. September 30, 1890.

12062. **Silver Ore** (argentiferous cerussite and galena). Griffin Mine, Sylvania District, Inyo County, California. Robert Leschinske. September 30, 1890.

12063. **Magnesite** (carbonate of magnesia). Styria, Austria. Henry Wulf. September 30, 1890.

12064. **Tampo**—Japanese coin issued about 1820. William Proll. September 30, 1890.

12065. **Nishu Kin** (2)—Japanese gold coin (one eighth of a Riyo). T. Kitsumesaki. September 30, 1890.

12066. **Alum**—Native. Ready Relief Mine, Banner District, San Diego County, California. September 30, 1890.

12067. **Sapphires and Garnets.** El Dorado Bar, Montana. George O. Nettleton. September 30, 1890.

12068. **Partzite** (hydrous oxide of antimony). Diana Mine, Blind Spring Hill, Benton, Mono County, California. October 1, 1890.

12069. **Colemanite** (borate of lime). Death Valley, Inyo County, California. R. L. Dunn. October 1, 1890.

12070. **Pandermite** (borate of lime). Death Valley, Inyo County, California. R. L. Dunn. October 1, 1890.

12071. **Celestite** (sulphate of strontium) and Colemanite. Ash Meadows, Nevada. R. L. Dunn. October 1, 1890.

12072. **Celestite** (sulphate of strontium) on Colemanite. Death Valley, Inyo County, California. R. L. Dunn. October 1, 1890.

12073. **Colemanite** (borate of lime). Death Valley, Inyo County, California. R. L. Dunn. October 1, 1890.

12074. **Anglesite** (sulphate of lead), with Galena. October 1, 1890.

12075. **Fiorite** (variety of opal). Yellowstone Park, Montana. J. Z. Davis. October 3, 1890.

12076. **Pearl Sinter** (variety of geyserite). Yellowstone Park, Montana. J. Z. Davis. October 3, 1890.

12077. **Opaline Sinter**—Botryoidal. Fire Hole Basin, Yellowstone Park, Montana. J. Z. Davis. October 3, 1890.

12078. **Pearl Sinter**—Resembling the tooth of an elephant. Yellowstone Park, Montana. J. Z. Davis. October 3, 1890.

12079. **Asbestus** (amphibole and pyroxene). San Jacinto Mountains, San Diego County, California. Chalmers Scott. October 3, 1890.

12080. **Gold**—120 grains. Mammoth Mine, T. 33 N., R. 10 W., Trinity County, California. William P. Miller. October 9, 1890.

12081. **Pebbles**—Rough and polished specimens. Pescadero Beach, San Mateo County, California. Samuel Sonnenfeld. October 9, 1890.

12082. **Barite** (sulphate of barium), with Tetrahedrite, Malachite, Azurite, and traces of Lead and Silver. Lovelocks, Churchill County, Nevada. B. R. Reid. October 9, 1890.

12083. **Slate**—Roofing slate from the quarry of the Strahle Slate Company, Kelsey, El Dorado County, California. Jacob Strahle. October 9, 1890.

12084. **Building Stone**—Sandstone. Quarry in Putah Cañon, Yolo County, California. October 11, 1890.

12085. **Aragonite** (carbonate of calcium). Dickie Ranch, three miles west of Suisun, Solano County, California. October 11, 1890.

12086. **Manganese Ore**—Pyrolusite. Caire Mine, San Joaquin County, California. October 11, 1890.

12087. **Wall Rock.** Hanging wall of No. 12086. October 11, 1890.

12088. **Wall Rock.** Foot wall of No. 12086. October 11, 1890.

12089. **Manganese Ore**—Pyrolusite. Jenkin Richard's Mine, nine miles west of Tracy, San Joaquin County, California. October 11, 1890.

12090. **Clay**—Nonplastic and very absorbent. Eight miles west of Crow's Landing, Stanislaus County, California. October 11, 1890.

12091. **Clay**—Indurated, ferruginous clay, from the Potrero Hills, Solano County, California. October 11, 1890.

12092. **Concretions**—Calcareous, met with in considerable quantities in boring wells at Newman, Stanislaus County, California. October 11, 1890.

12093. **Magnesite** (carbonate of magnesia). Twelve miles from Rutherford, Napa County, California. H. G. Staab. October 11, 1890.

12094. **Copper Ore**—Chalcocite and Malachite. From near St. Helena, Napa County, California. F. W. Keeney. October 11, 1890.

12095. **Manganese Ore**—Pyrolusite. From near St. Helena, Napa County, California. F. W. Keeney. October 11, 1890.

12096. **Chromic Iron,** in Serpentine. From near St. Helena, Napa County, California. F. W. Keeney. October 11, 1890.

12097. **Gold,** in Talc. Mariposa, Mariposa County, California. Reuben Lerch. October 11, 1890.

12098. **Silver Ore.** Cashier Mine, Exchequer District, San Bernardino County, California. W. K. Aldersley. October 11, 1890.

12099. **Wurtzillite** (a hydrocarbon). Wasatch County, Utah. Robert Forrester. October 11, 1890.

12100. **Albertite** (a variety of asphaltum). Utah County, Utah. Robert Forrester. October 11, 1890.

12101. ——— (a hydrocarbon?). New mineral from Tie Fork, Utah County, Utah. Discovered in 1890. Robert Forrester. October 11, 1890.

12102. **Gold,** on crystallized Quartz. Peabody Mine, Grass Valley, Nevada County, California. Alfred Tregidgo. October 15, 1890.

12103. **Epsomite** (hydrous sulphate of magnesium), crystallized. Napa County, California. J. Z. Davis. October 15, 1890.

12104. **Diatomaceous Earth.** Redondo Beach, Los Angeles County, California. October 15, 1890.

12105. **Marmolite** (a variety of serpentine). Mount Diablo, Contra Costa County, California. October 15, 1890.

12106. **Molybdenite** (sulphide of molybdenum), in granite. Campo, San Diego County, California. Charles A. Raber. October 15, 1890.

12107. **Pyrargyrite** (sulphantimonide of silver, "ruby silver"). Chile. October 15, 1890.

12108. **Pyrargyrite** (sulphantimonide of silver). Colorado. October 15, 1890.

12109. **Gold**—"Wire gold." White Bull Mine, Oregon. Melville Atwood. October 15, 1890.

12110. **Lava.** Santa Lucia Mountains, Monterey County, California. October 15, 1890.

12111. **Yellow Ochre.** Knight's Ferry, Stanislaus County, California. October 15, 1890.

12112. **Magnesite** (carbonate of magnesia). Near Yountville, Napa County, California. R. E. Towle. October 15, 1890.

12113. **Serpentine,** with a vein of Picrolite. Mother Lode, Amador County, California. Dr. Boyson. October 15, 1890.

12114. **Trachyte.** Lachryma Montis, near Sonoma, Sonoma County, California. James H. Cutter. October 15, 1890.

12115. **Copper Ore**—Chalcocite. Red Cap Mine, fifty miles north of Eureka, Humboldt County, California. October 21, 1890.

12116. **Chalcopyrite** (sulphide of copper and iron). 500-foot level of the Union Mine, Copperopolis, Calaveras County, California. A. Ogden. October 21, 1890.

12117. **Fossils—Cretaceous** (Meretrix horni, Gabb; Cardium cooperi, Gabb; Dosinia elevata, Gabb; and Turritella uvasana, Con.), in limestone. Putah Cañon, Yolo County, California. October 24, 1890.

12118. **Fossils—Cretaceous** (Turritella saffordi, Gabb, and Lunatia shumardiana, Gabb). Four miles north of Suisun, Solano County, California. October 24, 1890.

12119. **Diatomaceous Earth.** Beswick, Siskiyou County, California. Charles Olaine. October 24, 1890.

12120. **Cinnabar** (sulphide of mercury). Horseshoe Bend, Merced River, California. October 24, 1890.

12121. **Ottrelite**—a variety of Chloritoid (hydrous silicate of aluminum and iron). Yreka, Siskiyou County, California. Mr. Carrick. October 28, 1890.

First occurrence of this mineral noted in California.

12122. **Marble**—polished cube. Indian Diggings, El Dorado County, California. H. Rees. October 28, 1890.

12123. **Petrified Endogenous Plant Stem,** exterior surface carbonized. From the Wealden clay of the Lower Cretaceous period. Found near Hastings, Sussex County, England. W. L. Watts. October 28, 1890.

12124. **Chromic Iron.** Newville, Colusa County, California. J. R. Whitlock. October 28, 1890.

12125. **Eudialyte** (silicate of zirconium, iron, and sodium). Hot Springs, Arkansas. October 30, 1890.

12126. **Mixite** (hydrous arsenate of bismuth and copper). Copperopolis Mine, Tintic District, Utah. October 30, 1890.

12127. **Cyrtolite** (a variety of zircon). Llano County, Texas. October 30, 1890.

12128. **Half Real** of Augustino Iturbide, first Emperor of Mexico, 1822, and **Dime** of Maximilian, 1864. C. F. Von Petersdorff. November 1, 1890.

12129. **Asphalt.** From the mines of the Neuchatel Asphalt Company. Known as the "Val de Travers" asphalt. John Harrigan. November 3, 1890.

It consists of 81 per cent of carbonate of lime, and 19 per cent of bitumen. Extensively employed in European cities for street paving, etc.

12130. **Asphaltum.** The pure bitumen extracted from No. 12129. John Harrigan. November 3, 1890.

12131. **Tremolite** (silicate of magnesium, iron, calcium, and aluminum). Ventura, California. S. Bowers. November 5, 1890.

12132. **Andalusite Schist.** Mariposa, California. D. Lawson. November 5, 1890.

12133. **Gold Quartz.** Cleveland Mine, Sierra County, California. November 5, 1890.

12134. **Gold Quartz.** Mountain Ledge Mine, Sierra County, California. November 5, 1890.

12135. **Gold Quartz.** Comet Mine, Sierra County, California. November 5, 1890.

12136. **Gold Quartz.** Tom George Mine, Plymouth District, Amador County, California. November 5, 1890.

12137. **Gold Quartz.** New York Mine, Amador County, California. November 5, 1890.

12138. **Gold Quartz.** Clinton Consolidated Mine, Clinton, Amador County, California. November 5, 1890.

12139. **Auriferous Pyrite.** No. 7 tunnel, Riverside Mine, West Point District, Calaveras County, California. November 5, 1890.

12140. **Gold Quartz.** William Tell Mine, Sierra County, California. November 5, 1890.

12141. **Gold Quartz.** Champion Mine, Mariposa County, California. November 5, 1890.

12142. **Gold Quartz.** Bear Creek or Malone Mine, Mariposa County, California. November 5, 1890.

12143. **Gold Quartz.** Paregory & Heiser Mine, Whitlock District, Mariposa County, California. November 5, 1890.

12144. **Gold Quartz.** Farmer's Hope Mine, Whitlock District, Mariposa County, California. Reed Bros. November 5, 1890.

12145. **Gold Quartz.** Sebastopol Mine, Mariposa County, California. November 5, 1890.

12146. **Gold Quartz,** rich in free gold. Whitlock District, Mariposa County, California. Jos. Schwartz. November 5, 1890.

12147. **Gold Quartz.** Hayseed Mine, Whitlock District, Mariposa County, California. November 5, 1890.

12148. **Gold Quartz,** with free gold. Triumph Mine, Whitlock District, Mariposa County, California. Allen Helm. November 5, 1890.

12149. **Gold Quartz,** with free gold; showing the character of the quartz when near a "pocket." Sebastopol Mine, Mariposa County, California. J. A. Ridgeway. November 5, 1890.

12150. **Marble.** Carae Marble Quarry, recently opened, four miles below Volcano, on the south side of Sutter Creek, Amador County, California. November 5, 1890.

12151. **Building Stone**—Sandstone. From a large body in T. 16 N., R. 1 W., H. M., 1½ miles N.E. from Crescent City, Del Norte County, California. November 5, 1890.

12152. **Manganese Ore**—Pyrolusite and Rhodonite. Auburn, Placer County, California. Alexander Keller. November 6, 1890.

12153. **Manganese Ore**—Pyrolusite. Greenwood, El Dorado County, California. Alexander Keller. November 6, 1890.

12154. **Copper Ore.** H. Lorenzo's Ranch, between Junction City and North Fork, Trinity County, California. November 6, 1890.

12155. **Gold Quartz.** Chandler Smith Mine, Lower Springs, Shasta County, California. November 6, 1890.

12156. **Gold Quartz,** with free gold. Tamarack Mine, T. 38 N., R. 9 W., Trinity County, California. November 6, 1890.

12157. **Gold Quartz,** with free gold. Yellowstone Mine, T. 35 N., R. 11 W., East Fork, Trinity County, California. November 6, 1890.

12158. **Gold Quartz.** Lookout Mine, T. 35 N., R. 10 W., Cañon Creek, Trinity County, California. November 6, 1890.

12159. **Gold Quartz.** Smith's Mine, T. 36 N., R. 9 W., Stewart's Fork, Trinity County, California. November 6, 1890.

12160. **Gold Quartz.** Last Chance Mine (of the Deadwood Company), T. 33 N., R. 8 W., Sec. 10, M. D. M., Trinity County, California. November 6, 1890.

12161. **Malacolite**—a variety of Pyroxene (silicate of iron, calcium, and magnesium). Tulare County, California. M. Braverman. November 6, 1890.

12162. **Oolite**—Siliceous (quartz). Center County, Pennsylvania. M. Braverman. November 6, 1890.

12163. **Garnet Rock.** Wevertown, New York. M. Braverman. November 6, 1890.

12164. **Cement Rock.** Suñol Valley, Alameda County, California. Pedro de Saisset. November 7, 1890.

12165. **Building Stone**—Sandstone; dressed cube. Diamond Quarry, sixty miles S.E. from Salt Lake City, Utah. J. R. Walker. November 7, 1890.

12166. **Building Stone**—Sandstone; dressed cube. Kyune Quarry, one hundred and five miles S.E. from Salt Lake City, Utah. J. R. Walker. November 7, 1890.

12167. **Granite**—Schorlaceous. Partially decomposed and altered, the mica being replaced by tourmaline. Alameda County, California. C. E. Hall. November 7, 1890.

12168. **Psilomelane** (hydrous oxide of manganese and barium). Near Grass Valley, Nevada County, California. M. C. Taylor. November 13, 1890.

Has from 70 to 80 per cent binoxide of manganese.

12169. **Lead Ore.** Thompson's Mine, Old Woman's Mountain, San Bernardino County, California. November 15, 1890.

12170. **Silver Ore.** Excelsior Mine, Old Woman's Mountain, San Bernardino County, California. November 15, 1890.

12171. **Silver Ore.** Mayflower Mine, Old Woman's Mountain, San Bernardino County, California. November 15, 1890.

12172. **Silver Ore.** Keystone Mine, Old Woman's Mountain, San Bernardino County, California. November 15, 1890.

12173. **Silver Ore.** Noonday Mine, Resting Springs, Inyo County, California. November 15, 1890.

12174. **Silver Ore.** Attica Mine, Resting Springs, Inyo County, California. November 15, 1890.

12175. **Silver Ore.** Holland Mine, Holcomb Valley, San Bernardino County, California. November 15, 1890.

12176. **Marcasite** (sulphide of iron), variety known as "Spear Pyrites," on Serpentine. Napa County, California. H. Gesford. November 15, 1890.

12177. **Piece of an Ancient Canoe,** probably made by the Picts. The canoe was found imbedded in the mud at the bottom of Loch Leven, Scotland. The wood is oak, blackened by its long submersion. James Sullivan. November 15, 1890.

12178. **Molave Wood** (Vilex geniculata altissima). Two large specimens of this rare wood, found only in the Philippine Islands, where it is called by the natives the "Queen of Woods," and is used for many purposes. It resists the action of water, and the attacks of insects. Emil Klopfer. November 21, 1890.

12179. **Gold Quartz,** showing free gold. McGowan Mine, Mineral Township, Plumas County, California. S. S. Taylor. November 22, 1890.

12180. **Gold Quartz,** showing free gold. Fred. Lewis Mine, Rich Gulch, Plumas County, California. S. S. Taylor. November 22, 1890.

12181. **Gold Quartz.** Halstead Mine, Rich Gulch, Plumas County, California. S. S. Taylor. November 22, 1890.

12182. **Silver Ore.** Moulton Mine, Butte, Montana. C. L. Canfield. November 22, 1890.

12183. **Silver**—Native, on ore from the Butte and Boston Mine, Butte, Montana. C. L. Canfield. November 22, 1890.

12184. **Sphalerite** (sulphide of zinc). Butte, Montana. C. L. Canfield. November 22, 1890.

12185. **Electrum** (natural alloy of gold and silver). Siberia. J. Z. Davis. November 28, 1890.

12186. **Gold Quartz** (auriferous arsenical pyrite). North Star Mine, Sutter Creek, Amador County, California. Dr. Boyson. November 28, 1890.

12187. **Manganese Ore**—Pyrolusite. Near Freestone, Sonoma County, California. W. J. Woodley. November 29, 1890.

12188. **Gold Quartz** from upper ledge and croppings of the Gold Mountain Mine, one and one half miles northeast from Amador City, Amador County, California. J. L. Goodman. December 2, 1890.

12189. **Gold Quartz,** with inclosing rocks, from the lower ledge of the Gold Mountain Mine, Amador County, California. J. L. Goodman. December 2, 1890.

12190. **Liparite Tufa.** "Callustro Rock." Calistoga, Napa County, California. December 3, 1890.

12191. **Gold Quartz,** with Sphalerite. Duncan Mine, Hornitos, Mariposa County, California. Jerome B. Brown. December 3, 1890.

12192. **Ferruginous Concretion,** with what appears to be a rude carving on the upper side. Possibly an Indian amulet. Taylor Mountain, near Santa Rosa, Sonoma County, California. J. P. Stanley. December 4, 1890.

12193. **Spoon,** of horn. Made and used by the Indians of British Columbia. J. Z. Davis. December 5, 1890.

12194. **Adze or Chisel,** of black slate. Made and used by the Indians of British Columbia. J. Z. Davis. December 5, 1890.

12195. **Pyrrhotite**—Magnetic Pyrite, with traces of copper and nickel. From a large deposit on Elk Ridge, Humboldt County, California. J. B. Brown. December 5, 1890.

12196. **Spear Head of Chert.** Cape Smith, Alaska. F. Cotto. December 5, 1890.

12197. **Skins of Ermine and Dog** (fœtus). Arctic shore of Alaska. F. Cotto. December 6, 1890.

12198. **Esquimau Curios.** Six specimens. F. Cotto. December 6, 1890.

12199. **Esquimau Implement** for catching birds by throwing. F. Cotto. December 6, 1890.

12200. **Esquimau Sling.** Alaska. F. Cotto. December 6, 1890.

12201. **Esquimau Carvings of Ivory.** Alaska. F. Cotto. December 6, 1890.

12202. **Esquimau Fish Troll and Harpoon Heads.** Alaska. F. Cotto. December 6, 1890.

12203. **Esquimau Flint and Tinder,** for procuring fire. Alaska. F. Cotto. December 6, 1890.

12204. **Esquimau Marlinspike,** of Ivory, the large end carved to represent an otter's head. Alaska. F. Cotto. December 6, 1890.

12205. **Slate**—Siliceous, somewhat resembling novaculite. King's Island, Behring Straits. F. Cotto. December 6, 1890.

It makes a good whetstone.

12206. **Aluminum Bronze**—Aluminum 10 per cent, copper 90 per cent. W. P. Lyle. December 6, 1890.

Stated by the donor to have been made at Lockport, New York, by the Cowles Electric Smelting Company in 1885, by fusing granulated copper with crushed corundum, by means of electricity.

12207. **Gold Quartz,** showing free gold. From an old placer mine near the Veragua River, Isthmus of Panama, which was worked by the natives previous to the discovery of this continent by Columbus, who sailed into this river on his fourth voyage in 1503, and visited these mines. It was from this river that he derived his title of Duke of Veragua. W. P. Lyle. December 6, 1890.

12208. **Gold Quartz,** showing free gold. Croppings from a claim on the South Fork of the San Joaquin River, Fresno County, California. John Knox. December 12, 1890.

12209. **Vanadinite** (chloro-vanadate of lead). Mammoth (gold) Mine, Pinal County, Arizona. Otto Metchke. December 16, 1890.

12210. **Gypsum** (hydrous sulphate of calcium). Ten miles east from Panoche, San Benito County, California. W. J. Curtner. December 18, 1890.

12211. **Gypsum**—a pseudomorph after wood, the latter having been replaced by the gypsum without change of structure. Hot Springs, near Panoche, San Benito County, California. W. J. Curtner. December 18, 1890.

12212. **Amethyst Crystals.** Guanajuato, Mexico. Williamsburgh Scientific Society. December 20, 1890.

12213. **Antimony Ore**—Stibnite. Ambrose Mine, near Hollister, San Benito County, California. W. L. Watts. December 20, 1890.

12214. **Gold Quartz,** showing free gold. Aurora Mine, Alamo, Santa Clara District, Lower California, Mexico. Mr. Rhodes. December 20, 1890.

12215. **Silver Ore.** Dana Mine, Calico, San Bernardino County, California. J. A. Reid. December 20, 1890.

12216. **Gypsum** (hydrous sulphate of calcium), var. Alabaster. San Joaquin Ranch, Orange County, California. J. Irvine. December 20, 1890.

12217. **Silver Ore.** Kirkland Mine, Newcastle, Placer County, California. December 20, 1890.

Assay S. M. B.: Silver, 66 ounces; gold, $3 00 per ton.

12218. **Molybdenite** (sulphide of molybdenum), in granite. Hazel Creek, Shasta County, California. J. Williams. December 23, 1890.

12219. **Chromic Iron.** Near Woodland, Yolo County, California. J. F. Johnson. December 30, 1890.

12220. **Selenide of Mercury.** San Joaquin Ranch, Orange County, California. J. Irvine. December 30, 1890.

12221. **Gold.** Placer gold, Spring Valley, Humboldt County, Nevada. L. F. Dunn. December 30, 1890.

12222. **Gold in Cerargyrite** (chloride of silver). Ore of the Mammoth Mine, Tintic District, Utah. Mrs. H. H. Day. December 30, 1890.
Said to assay $7,000 silver; $1,900 gold per ton.

12223. **Bank Note** for one dollar. City Bank of Hartford, Connecticut, 1851. Mrs. F. H. Todd. December 30, 1890.

12224. **Barite** (sulphate of barium) gangue of the selenide of mercury, No. 12220. San Joaquin Ranch, Orange County, California. J. Irvine. December 30, 1890.

12225. **Limestone**—Hydraulic. Thought to be suitable for the manufacture of cement. From the ranch of William Clark, seven miles east from Madrone, Santa Clara County, California. William Clark. December 30, 1890.

12226. **Asbestus** (silicate of magnesium, iron, calcium, and aluminum). Variety known as "blue" asbestus. Orange River, South Africa. Robert H. Jones. January 2, 1891.

12227. **Building Stone**—Trachytic Tufa. Tehama County, California. J. A. Heslewood. January 3, 1891.

12228. **Tourmaline**—Green (boro-silicate of aluminum and magnesium). Auburn, Maine. Williamsburgh Scientific Society. January 3, 1891.

12229. **Gold Quartz.** Summit Mine, Sunny Hill District, between Ono and Bully Choop, Shasta County, California. Jewett Scranton. January 3, 1891.
Assay, S. M. B.: 100 ounces gold per ton.

12230. **Silver Ore.** Centennial Mine, Eureka District, Utah. Mrs. H. H. Day. January 3, 1891.

12231. **Gold Quartz.** Good Hope Mine, Pinacarte District, San Diego County, California. A. H. Griswold. January 3, 1891.
Assay, S. M. B.: 17 ounces gold per ton.

12232. **Grossularite** (iron lime garnet), on quartz, with quartz crystals, which appear to be pseudomorphs after garnets. Tehachapi, Kern County, California. Miss C. Emery. January 3, 1891.

12233. **Garnet**—Almandite, in mica schist, with Rhaetzite (Disthene). Santa Margarita Ranch, San Diego County, California. H. W. Fairbanks. January 10, 1891.

12234. **Mica**—Muscovite. Department of Baja Vera Paz, Guatemala. David B. Rea. January 20, 1891.

12235. **Manganese Ore**—Pyrolusite. Corral Hollow, near Livermore, Alameda County, California. Ad. Sommers. January 20, 1891.

12236. **Silver Ore,** with chrysocolla and crystallized gypsum. Candelaria, Esmeralda County, Nevada. J. L. Callison. February 3, 1891.

12237. **Silver Ore,** with antimony and carbonate of lead. Candelaria, Esmeralda County, Nevada. J. L. Callison. February 3, 1891.

12238. **Calcite** (carbonate of calcium), massive. Said to be in large quantity near East Oakland, Alameda County, California. R. C. Look. February 3, 1891.

12239. **Chrysotile** (a variety of serpentine). Richmond County, Quebec, Canada. Benjamin E. Lyster. February 3, 1891.

12240. **Michigan Currency,** value three dollars, issued in 1838, and popularly called "Red Dog" or "Wildcat" money. A. S. Penfield. February 3, 1891.

12241. **Pearls,** from freshwater mussels, found in Sugar Creek, Wisconsin. Mrs. J. H. Martin. February 3, 1891.

12242. **Siderite** (carbonate of iron), with Hematite, on quartz. Antwerp, New York. Williamsburgh Scientific Society. February 3, 1891.

12243. **Hematite** (sesquioxide of iron)—botryoidal, on crystallized quartz. Antwerp, New York. Williamsburgh Scientific Society. February 3, 1891.

12244. **Indian Arrow Head of Flint.** Blennerhasset Island, Kanawha River, West Virginia. James Goucher. February 3, 1891.

12245. **Hauerite** (sulphide of manganese), unusually large and fine crystal. Ragusa, Sicily. February 3, 1891.

12246. **Coal**—Lignite of good quality, from a vein said to be twenty-one feet thick. Sec. 12, T. 33, R. 2 W., twenty-five miles north of east from Redding, Shasta County, California. Oscar C. Schultze. February 4, 1891.

ANALYSIS, S. M. B.:

Water	9.50
Volatile hydrocarbons	37.50
Fixed carbon	46.25
Ash	6.75
	100.00

12247. **Quartz,** variety known as "saccharine" quartz. Twelve miles north of Willits, Mendocino County, California. E. R. Shimmin. February 5, 1891.

12248. **Chromic Iron,** with Ouvarovite (chrome garnet). Twelve miles north of Willits, Mendocino County, California. E. R. Shimmin. February 5, 1891.

12249. **Vanadinite** (vanadate of lead). Brilliant Mine, Yuma County, Arizona. February 7, 1891.

12250. **Building Stone**—Sandstone. Crushing strength 8,000 pounds to the square inch. Ventura County, California. Ventura Brownstone Company. February 7, 1891.

12251. **Gold Quartz,** with Chalcopyrite. From a claim sixty miles above Juneau, on the coast of Alaska. G. W. Yount. February 7, 1891.

12252. **Borax** (borate of sodium). Crude material from Saline Valley, Inyo County, California. A. Neuschwander. February 9, 1891.

12253. **Tincal** (native borax). Saline Valley, Inyo County, California. A. Neuschwander. February 9, 1891.

12254. **Bernardinite** (a hydrocarbon). San Bernardino, California. George D. Craig. February 12, 1891.

12255. **Cyanite** (silicate of aluminum), in mica schist. From near Los Angeles, California. C. N. Pring. February 12, 1891.

12256. **Cobalt Ore**—Erythrite and Smaltite, on Calcite. San Gabriel Cañon, Los Angeles County, California. W. H. Adams, Jr. February 13, 1891.

12257. **Beryl** (silicate of glucinum and aluminum). Portland, Connecticut. E. F. Sheldon. February 14, 1891.

12258. **Columbite** (columbate of iron). Portland, Connecticut. E. F. Sheldon. February 14, 1891.

12259. **Granite**—var. Anorthite. New Glasgow, Quebec, Canada. H. Lampard. February 18, 1891.

12260. **Trap**—Amygdaloidal. Mount Royal, Montreal, Canada. H. Lampard. February 18, 1891.

12261. **Syenite**—Nepheline, with Sodalite. Mount Royal, Montreal, Canada. H. Lampard. February 18, 1891.

12262. **Syenite**—Nepheline, with Dolomite. Mount Royal, Montreal, Canada. H. Lampard. February 18, 1891.

12263. **Dolerite**—Olivine. Mount Royal, Montreal, Canada. H. Lampard. February 18, 1891.

12264. **Feldspar**—Orthoclase. From a dyke cutting the Olivine Dolerite, No. 12263. Mount Royal, Montreal, Canada. H. Lampard. February 18, 1891.

12265. **Trachyte**—Micaceous, granitoid. Yamaske Mountain, Canada. H. Lampard. February 18, 1891.

12266. **Natrolite.** From the Nepheline Syenite, No. 12261. Mount Royal, Montreal, Canada. H. Lampard. February 18, 1891.

12267. **Calcite**—Dogtooth Spar. From between the Trap and Syenite, Nos. 12260 and 12261. Mount Royal, Montreal, Canada. H. Lampard. February 18, 1891.

12268. **Calcite,** in layers interstratified with Chlorite. Ravenna, Los Angeles County, California. J. Robertson. February 28, 1891.

12269. **Chrysotile** (hydrous silicate of magnesium). Knight's Ferry, Stanislaus County, California. W. A. Threlfall. February 28, 1891.

12270. **Gypsum** (hydrous sulphate of calcium), black, the color being due to oxide of iron. Ventura, California. A. G. Maus. February 28, 1891.

12271. **Spinel** (oxide of aluminum and magnesium). Bergen Hill, New Jersey. Miss S. P. Monks. February 28, 1891.

12272. **Willemite** (silicate of zinc). Franklin, New Jersey. Miss. S. P. Monks. February 28, 1891.

12273. **Algerite** (a variety of scapolite), in Calcite. New Jersey. Miss S. P. Monks. February 28, 1891.

12274. **Anomalite** (manganese, iron, and zinc). Franklin, New Jersey. Miss S. P. Monks. February 28, 1891.

12275. **Roepperite** (silicate of iron, manganese, zinc, and magnesium). Franklin, New Jersey. Miss S. P. Monks. February 28, 1891.

12276. **Uranium Ochre,** on granite. Middletown, Connecticut. Miss S. P. Monks. February 28, 1891.

12277. **Datholite** (boro-silicate of lime), with Natrolite. Bergen Hill, New Jersey. Miss S. P. Monks. February 28, 1891.

12278. **Quartz, Agate, Serpentine, etc.** Polished specimens, chiefly from Plumas County, California. S. S. Taylor. March 2, 1891.

12279. **Opal**—var. Opal-Agate. La Silleta, Jalisco, Mexico. Williamsburgh Scientific Society. March 3, 1891.

12280. **Pyrite**—Iridescent, on calcite. Woodend Mine, Egremont, Cumberland, England. Williamsburgh Scientific Society. March 3, 1891.

12281. **Marcasite** (sulphide of iron). Dover Cliffs, England. Williamsburgh Scientific Society. March 3, 1891.

12282. **Erythrite** (hydrous arsenate of cobalt). Los Angeles County, California. W. H. Adams. March 3, 1891.

12283. **Silver**—Native, in Smaltite (arsenide of cobalt and nickel). Los Angeles County, California. W. H. Adams. March 3, 1891.

12284. **Silver Ore.** Silverado Mine, Calistoga, Napa County, California. Daniel Patton. March 5, 1891.

12285. **Elk Horn.** H. Davis. March 5, 1891.

12286. **Graphite,** on quartz. Santa Rosa, Sonoma County, California. J. M. Walker. March 5, 1891.

12287. **Fossil Tooth** (portion of). Centennial Claim, Klamath River, Siskiyou County, California. March 6, 1891.

12288. **Fossil**—part of upper jaw, teeth, and tusks of Mammoth, Elephas primigenius. Found in Quaternary drift soil, over one hundred feet below the surface, on the northwest side of Santa Rosa Island, Santa Barbara County, California, October 27, 1890. March 7, 1891.

12289. **Fossil**—Tooth and part of lower jaw of Mammoth, Elephas primigenius (young). Found near No. 12288, on Santa Rosa Island, Santa Barbara County, California, October 27, 1890. March 7, 1891.

12290. **Fossil Tusk,** of Mammoth, Elephas primigenius (young). Before being disturbed it was two feet long, and nine inches in circumference at the large end. Found with No. 12289. March 7, 1891.

12291. **Fossil Bone,** upper bone of foreleg of Mammoth, E. primigenius. Found with No. 12289. March 7, 1891.

12292. **Fossil Bone,** probably the tibia of young Mammoth, E. primigenius. Found with No. 12289. March 7, 1891.

12293. **Calcareous Casts or Concretions.** Apparently formed on some species of vegetation. San Miguel Island, Santa Barbara County, California. March 7, 1891.

12294. **Chalcedony Pebbles.** Found in Amygdaloidal Basalt, near the southeast end of San Miguel Island, Santa Barbara County, California. March 7, 1891.

12295. **Sphaero-stilbite** (hydrous silicate of aluminum and calcium). San Pablo Mountains, Santa Rosa Island, Santa Barbara County, California. March 7, 1891.

12296. **Quartz Crystals.** Found in very hard conglomerate. Eagle Cliff, southeast side of San Miguel Island, Santa Barbara County, California. March 7, 1891.

12297. **Calcite** (carbonate of calcium). Found in seams four to six inches thick, in breccia. South side of San Miguel Island, Santa Barbara County, California. March 7, 1891.

12298. **Basalt**—Amygdaloidal. Southeast end of San Miguel Island, Santa Barbara County, California. March 7, 1891.

12299. **Lava**—Basaltic. Bluff near the mouth of the Cañada el Agua, Santa Rosa Island, Santa Barbara County, California. March 7, 1891.

12300. **Indian Stone Ring,** of serpentine. Santa Rosa Island, Santa Barbara County, California. March 7, 1891.

12301. **Indian Stone Rings,** three specimens. San Miguel Island, Santa Barbara County, California. March 7, 1891.

12302. **Indian Stone Ring,** of Sandstone. Santa Rosa Island, Santa Barbara County, California. March 7, 1891.

12303. **Indian Stone Mortar.** Santa Rosa Island, Santa Barbara County, California. March 7, 1891.

12304. **Indian Stone Pestles,** two specimens. San Miguel Island, Santa Barbara County, California. March 9, 1891.

12305. **Pebbles of Black Porphyritic Rock.** Found in piles containing from forty to one hundred pebbles, and sometimes packed in large abalone shells; they are also found in similar piles on San Nicolas Island, and were evidently collected for some unknown purpose by the aborigines. March 9, 1891.

12306. **War Paint** (iron oxide), found with other aboriginal relics on San Miguel Island, Santa Barbara County, California. March 9, 1891.

12307. **Indian Relics**—perforated disks found on Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12308. **Indian Stone Arrow Points,** thirteen specimens. San Miguel Island, Santa Barbara County, California. March 9, 1891.

12309. **Indian Stone Arrow Points**, ten specimens. Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12310. **Japanese Arrow,** with prismatic shaped steel head, and three similar arrow heads of different sizes; the kind formerly used in warfare. A. Hattori. March 9, 1891.

12311. **Chinese Matchlock,** with bullet pouch, which still contains some of the bullets and slugs used in the gun, small wooden powder flask for priming, and cartridge box with eight sections of bamboo, each holding a charge of powder, the grains of which are rather coarse and irregular in size. This curious weapon was captured by the French troops after a battle with the Chinese on the island of Formosa during the war of 1882. Presented by George A. Montell. March 9, 1891.

12312. **U. S. Half Dollar** of 1836. C. W. Ormsby. March 9, 1891.

12313. **Gypsum** (hydrous sulphate of calcium)—crystallized. Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12314. **Fossil Shell.** Mytilus californianus, Con. (Quaternary). San Miguel Island, Santa Barbara County, California. March 9, 1891.

12315. **Fossil Shell.** Saxidomus nuttalli, Con. (Quaternary). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12316. **Fossil Shell.** Olivella biplicata, Sow. (Quaternary). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12317. **Fossil Shell.** Hipponyx cranioides, Carp. (Quaternary). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12318. **Fossil Shell.** Fusus kobelti, Dall. (Quaternary). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12319. **Fossil Shell.** Tapes staminea, Con. (Quaternary). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12320. **Fossil Shell.** Axinæ patula, Con. (Quaternary). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12321. **Fossil Shell.** Pecten pabloensis, Con. (Pliocene). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12322. **Fossil Shell.** Turbinella ceastus, Brod. (Pliocene). Santa Rosa and San Miguel Islands, Santa Barbara County, California. March 9, 1891.

12323. **Fossil Shell.** Amiantis callosa, Con. (Pliocene). Santa Rosa and San Miguel Islands, Santa Barbara County, California. March 9, 1891.

12324. **Fossil Shell.** Turritella hoffmani, and casts, Gabb. (Pliocene). Santa Rosa and San Miguel Islands, Santa Barbara County, California. March 9, 1891.

12325. **Fossil Shell** (cast). Crepidula grandis, Midd. (Pliocene). Santa Rosa and San Miguel Islands, Santa Barbara County, California. March 9, 1891.

12326. **Fossil Shell.** Clementia subdiaphana, Carp. (Pliocene). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12327. **Fossil Shell.** Conchocele disjuncta, Gabb. (Pliocene). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12328. **Fossil Shell.** Ostrea veatchii, Gabb. (Pliocene). San Miguel Island, Santa Barbara County, California. March 9, 1891.

12329. **Fossil Shell.** Clypeaster gabbi, Remond. (Pliocene). San Miguel Island, Santa Barbara County, California. March 9, 1891.

12330. **Fossil Shell.** Glycimeris generosa, Gould. (Pliocene). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12331. **Fossil Shell.** Harvella elegans (Pliocene). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12332. **Fossil Shell.** Lucina borealis, Linn. (Pliocene). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12333. **Fossil Shell.** Liriopecten estrellanus, Con. (Pliocene). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12334. **Fossil Shell.** Standella californica, Con. (Pliocene). San Miguel Island, Santa Barbara County, California. March 9, 1891.

12335. **Fossil Shell.** Himnites crassa, Con. (Pliocene). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12336. **Fossil Shell.** Saxidomus nuttalli, Con. (Pliocene). Santa Rosa Island, Santa Barbara County, California. March 9, 1891.

12337. **Sapphire** (corundum), four specimens. Cashmere, Asia. Charles Batchelor. March 11, 1891.

12338. **Torrey's Pine,** Pinus torreyana. One of the conifers peculiar to California, and found only in one locality of about four miles in extent, on the coast of San Diego County, California. H. W. Fairbanks. March 12, 1891.

12339. **Building Stone**—Sandstone. Dressed cube, from the quarry three miles west of Clear Creek Station, Shasta County, California. From the California Sandstone and Contracting Company. March 12, 1891.

12340. **Iron Ore**—Hematite. Breitung Mine, Tower, Minnesota. March 12, 1891.

12341. **Quartzite.** Chub Lake, Minnesota. March 12, 1891.

12342. **Trap.** Gunflint Lake, Minnesota. March 12, 1891.

12343. **Porphyrel.** Gunflint Lake, Minnesota. March 12, 1891.

12344. **Gabbro.** White Iron Lake, Minnesota. March 12, 1891.

12345. **Dolerite.** Ogishke Muncie Lake, Minnesota. March 12, 1891.

12346. **Porphyry.** Kekekabic Lake, Minnesota. March 12, 1891.

12347. **Biotite Gabbro.** Kekekabic Lake, Minnesota. March 12, 1891.

12348. **Syenite.** Archway Rapids, Kawishiwi River, Minnesota. March 12, 1891.

12349. **Breccia of Mica Schist and Granite.** Minnesota. March 12, 1891.

12350. **Gabbro.** Birch Lake, Minnesota. March 12, 1891.

12351. **Porodyte Graywacke.** Vermillion Lake, Minnesota. March 12, 1891.

12352. **Greenstone.** Vermillion Lake, Minnesota. March 12, 1891.

12353. **Dolerite.** Vermillion Lake, Minnesota. March 12, 1891.

12354. **Syenite**—Chloritic. Vermillion Lake, Minnesota. March 12, 1891.

12355. **Jaspilite**—Light. Vermillion Lake, Minnesota. March 12, 1891.

12356. **Quartzite**—Gray. Vermillion Lake, Minnesota. March 12, 1891.

12357. **Felsite**—Red. Great Palisades, Lake Superior. March 12, 1891.

12358. **Syenite.** Watab, Minnesota. March 12, 1891.

12359. **Syenite**—Micaceous. St. Cloud, Minnesota. March 12, 1891.

12360. **Gneiss**—Syenitic. Sagauaga Lake, Minnesota. March 12, 1891.

12361. **Labradorite Gabbro.** Beaver Bay, Minnesota. March 12, 1891.

12362. **Quartzite**—Red. Siskiwit Point, Isle Royale, Michigan. March 12, 1891.

12363. **Trap**—Basaltic. Grand Marais, Minnesota. March 12, 1891.

12364. **Trap**—Amygdaloidal. (Thomsonite.) Terrace Point, North Shore, Lake Superior. March 12, 1891.

12365. **Metamorphic Rock.** Palisades, North Shore, Lake Superior. March 12, 1891.

12366. **Porphyritic Metamorphic Rock.** Beaver Creek, North Shore, Lake Superior. March 12, 1891.

12367. **Copper Ore**—Epidotic. Saginaw Mine, Isle Royale, Michigan. March 12, 1891.

12368. **Copper Ore**—Conglomerate. Isle Royale, Michigan. March 12, 1891.

12369. **Iron Ore.** Vermillion Lake, Minnesota. March 12, 1891.

12370. **Iron Ore.** Tower, Minnesota. March 12, 1891.

12371. **Auriferous Gravel,** large specimen, rich in free gold. Mayflower Mine, Forest Hill, Placer County, California. Mayflower Mining Company. March 16, 1891.

12372. **Embolite** (chloro-bromide of silver) in Cerussite. Central Mine, Broken Hill, New South Wales. W. N. Folger. March 16, 1891.

12373. **Cerussite** (carbonate of lead)—Argentiferous. Broken Hill, New South Wales. W. N. Folger. March 16, 1891.

12374. **Silver**—Native on Pyrargyrite, with Azurite and Malachite. Broken Hill, New South Wales. W. N. Folger. March 16, 1891.

12375. **Confederate Currency,** two specimens. Mrs. S. B. Haden. March 17, 1891.

12376. **Titanite**—Sphene (silico-titanate of calcium). Renfrew County, Ontario, Canada. D. R. McKillican. March 17, 1891.

12377. **Stalactites.** Mammoth Cave, Kentucky. A. S. Penfield. March 23, 1891.

12378. **Gold Quartz,** with tetrahedrite. Buster Mine, Elk City District, Idaho County, Idaho. S. W. Smith. March 25, 1891.

12379. **Gold Quartz.** Cleveland Mine, Elk City District, Idaho County, Idaho. S. W. Smith. March 25, 1891.

12380. **Cassiterite** (oxide of tin) in quartz. From the deep lead, Brickwood Tin Mine, Uralla, New South Wales. March 26, 1891.

12381. **Cassiterite** (oxide of tin). Thompson's claim, on the table-land, Emmaville, New South Wales. March 26, 1891.

12382. **Cassiterite** (oxide of tin). Pleasant Creek, Clarence District, New South Wales. March 26, 1891.

12383. **Cassiterite** (oxide of tin). Ruby Hill, Emmaville, New South Wales. March 26, 1891.

12384. **Cassiterite** (oxide of tin). Torrington claim, Emmaville, New South Wales. March 26, 1891.

12385. **Quartz Crystals,** with included Cassiterite. Dutchman's Reef, Emmaville, New South Wales. March 26, 1891.

12386. **Cassiterite** (oxide of tin). Dutchman's Reef, Emmaville, New South Wales. March 26, 1891.

12387. **Tin Ore** (Tin Stone, porphyry). Ottery Reef, Emmaville, New South Wales. March 26, 1891.

12388. **Gold Quartz,** showing free gold. Gorman's Lease, Peak Hill Gold Field, New South Wales. March 26, 1891.

12389. **Gold Quartz**—Ferruginous, showing free gold. Peak Hill Gold Field, New South Wales. March 26, 1891.

12390. **Auriferous Vein Matter.** Proprietary lease, Peak Hill Gold Field, New South Wales. March 26, 1891.

12391. **Chalcopyrite** (sulphide of copper and iron). Cobar, New South Wales. March 26, 1891.

12392. **Redruthite** (a variety of chalcocite, sulphide of copper). Cobar, New South Wales. March 26, 1891.

12393. **Copper**—Native. Cobar, New South Wales. March 26, 1891.

12394. **Malachite** (carbonate of copper). Cobar, New South Wales. March 26, 1891.

12395. **Azurite** (hydrous carbonate of copper). Cobar, New South Wales. March 26, 1891.

12396. **Pyromorphite** (phosphate and chloride of lead), with argentiferous galena. North Broken Hill, New South Wales. March 26, 1891.

12397. **Silver**—Native, on native copper. North Broken Hill, New South Wales. March 26, 1891.

12398. **Cerargyrite** (chloride of silver), in crystals, on limonite. Broken Hill, New South Wales. March 26, 1891.

12399. **Silver Ore**—Rich chloride ore. Broken Hill, New South Wales. March 26, 1891.

12400. **Danaite** (cobaltiferous mispickel). Shaw, near Carcoar, New South Wales. March 26, 1891.

12401. **Erythrite** (hydrous arsenate of cobalt). Shaw, near Carcoar, New South Wales. March 26, 1891.

12402. **Topaz** (silicate of aluminum). Tenterfield, New South Wales. March 26, 1891.

12403. **Stibnite** (sulphide of antimony). Corangula, near Kempsey, New South Wales. March 26, 1891.

12404. **Graphite** (carbon). New Borrowdale Mine, Tenterfield, New South Wales. March 26, 1891.

12405. **Coal** with **Ambrite** (fossil resin). Bay of Islands Coal Field, Russell, New Zealand. March 26, 1891.

12406. **Model of the Cadia Nugget.** Weight, 32¾ ounces. Found in 1885 near the surface, at Cadia, near Orange, New South Wales. March 26, 1891.

12407. **Model of the Platypus Nugget.** Weight, 377 ounces, 6 dwts.; value, about $7,500. Found March, 1861, at a depth of five feet from the surface, in Robinson Crusoe Gully, Bendigo, Victoria. March 26, 1891.

12408. **Model of the Viscount of Canterbury Nugget.** Weight, 1,121 ounces, 10 dwts.; value, about $22,000. Found May 31, 1870, at a depth of fifteen feet from the surface, in John's Paddock, Berlin, Victoria. March 26, 1891.

12409. **Model of the Thunda Meteorite.** The original weighs 137 pounds, sp. gr., 8-0. Found at Thunda, Windorah, Diamantina District, Queensland, Australia. March 26, 1891.

12410. **Stromeyerite** (sulphide of copper and silver). Silver King Mine, Pinal County, Arizona. J. V. Copeland. March 26, 1891.

12411. **Aragonite** (carbonate of calcium, "onyx marble"). Dressed and polished specimen. San Luis Obispo County, California. J. and F. Kessler. March 28, 1891.

12412. **Medal,** struck at the United States Mint, from bullion produced from Nevada ores milled at the Centennial Exposition in Philadelphia, in 1876. Thomas G. Taylor. April 1, 1891.

12413. **Calcite**—Botryoidal. Found with Priceite, Lone Ranch, Curry County, Oregon. April 1, 1891.

12414. **Improved Folding Miner's Candlestick.** Wernitz Patent, December 25, 1888. E. B. Burdick. April 1, 1891.

12415. **Aragonite** (carbonate of calcium). Silver Cañon, Santa Catalina Island, Los Angeles County, California. April 1, 1891.

12416. **Fossil Shell.** Murex radix, var. Gmel. Orange County, California. S. Bowers. April 1, 1891.

12417. **Stanno-tantalite** (tantalum, tin, iron, and manganese) in Greisen. South Dakota. Werner Langguth. April 9, 1891.

12418. **Autunite** (phosphate of uranium and calcium). Black Hills, South Dakota. Werner Langguth. April 9, 1891.

12419. **Cerargyrite** (chloride of silver) on copper ore. Black Hills, South Dakota. Werner Langguth. April 9, 1891.

12420. **Pectolite** (hydrous silicate of calcium and sodium). Santa Barbara, California. Dr. L. G. Yates. April 9, 1891.

12421. **Turquois** (hydrous phosphate of aluminum). Candelaria, Esmeralda County, Nevada. W. H. Shockley. April 13, 1891.

12422. **Chromic Iron.** Near Cholame, San Luis Obispo County, California. Hutchins & Montgomery. April 13, 1891.

12423. **Copper Ore.** Whale Mine, Saline Valley, Inyo County, California. W. C. Chapin. April 16, 1891.

12424. **Fossil Shell.** Scutella gibbosus. Ventura County, California. April 17, 1891.

12425. **Fossil Shell.** Astrodapsis whitneyi. Ventura County, California. April 17, 1891.

12426. **Fossil Shell.** Pecten caninus, Gld. Ventura County, California. April 17, 1891.

12427. **Fossil Shell.** Pecten hastatus, Sby. Ventura County, California. April 17, 1891.

12428. **Fossil Shell.** Turritella hoffmani, Gabb. Ventura County, California. April 17, 1891.

12429. **Heike Kani.** (Face crab, Heike crab.) Two specimens, from the Inland Sea, Japan. Arthur E. Roberts. April 17, 1891.

12430. **Sponge,** of very fine texture. Coast of Siberia, 58 degrees north latitude. Capt. George Ball. April 17, 1891.

12431. **Zinc Ore**—Sphalerite. Silver Cañon, Santa Catalina Island, Los Angeles County, California. April 20, 1891.

12432. **Picrolite** (a variety of serpentine). From the asbestus mines of Thetford, Quebec, Canada. B. E. Lyster. April 20, 1891.

12433. **Clay**—Plastic and refractory. Santa Barbara, California. T. L. Perry. April 20, 1891.

12434. **Gold Quartz.** From a ledge in the desert about forty-five miles N.E. from Mojave, Kern County, California. E. P. Marsellus. April 20, 1891.

Assay, S. M. B.: Gold, $24 80 per ton.

12435. **Severite** (hydrous silicate of alumina). Otay Ranch, San Diego County, California. San Diego Chamber of Commerce. April 22, 1891.

12436. **Gold Quartz,** rich in free gold. Florence Mine, Leadville, Colorado. Hans Vogt. April 22, 1891.

12437. **Silver**—Native, on ore from the Continental Chief Mine, Leadville, Colorado. Hans Vogt. April 22, 1891.

12438. **Gold Quartz,** showing free gold. Eureka Vein, Pine Valley District, San Diego County, California. April 22, 1891.

12439. **Tin.** Ingot smelted from the ore of the Temescal tin mines, San Bernardino County, California. James H. Crossman. April 25, 1891.

12440. **Gersdorffite** (sulph-arsenide of nickel). Columbus District, Esmeralda County, Nevada. William H. Shockley. April 25, 1891.

12441. **Boulangerite** (sulph-antimonide of lead). Columbus District, Esmeralda County, Nevada. William H. Shockley. April 25, 1891.

12442. **Glaucophane** (silicate of aluminum, iron, magnesium, and sodium). The first occurrence of the mineral noted in California. Willits, Mendocino County, California. H. T. Finell. April 27, 1891.

12443. **Barite** (sulphate of barium). Calico, San Bernardino County, California. R. Gribben. April 27, 1891.

12444. **Chromic Iron,** high grade. North half of Sec. 24, T. 5 S., R. 1 E., M. D. M., Alameda County, California. E. J. Hicks. May 2, 1891.

12445. **Chrysotile** (a variety of serpentine). Hollister, San Benito County, California. George Vaughn. May 4, 1891.

12446. **Asbestus** (serpentine). Coalinga, Fresno County, California. George H. Battenfeld. May 4, 1891.

12447. **Gold Quartz.** Boston Mine, Mokelumne Hill, Calaveras County, California. William T. Robinson. May 6, 1891.

12448. **Gold Quartz.** Mina Rica Mine, near Auburn, Placer County, California. May 6, 1891.

12449. **Gold Quartz.** Bullion Mine, Placer County, California. May 6, 1891.

12450. **Stibnite** (sulphide of antimony), in fine crystals. Gypsy Mine, San Benito County, California. Charles E. Derby. May 8, 1891.

12451. **Chloritic Quartz** (common Itacolumnite). Ben Hur, Mariposa County, California. W. A. B. Richardson. May 8, 1891.

12452. **Petroleum,** solidified by a chemical process for use as fuel, instead of coal. Santa Cruz, California. J. C. Hatch. May 9, 1891.

12453. **Gold Quartz.** Herculean Mine, Baker County, Oregon. A. W. Manning. May 9, 1891.

Assay: Gold, $97; silver, $12 per ton.

12454. **Clay.** From near Jolon, Monterey County, California. Contains sand and oxide of iron, and burns pinkish when unwashed. Freed from the above impurities by washing, it burns white, with a yellowish tinge. May 9, 1891.

ANALYSIS, S. M. B.:

Silica	85.07
Alumina	7.85
Iron	1.16
Lime	.25
Magnesia	.35
Alkalies	.93
Water	4.35
	99.96

12455. **Graphite.** Said to occur in quantity. Drum Valley, Tulare County, California. M. Braverman. May 13, 1891.

12456. **Cerussite** (carbonate of lead), crystallized. Thirty-five miles above The Needles, and five miles from the Colorado River, San Bernardino County, California. Henry Schaefer. May 18, 1891.

12457. **Jarosite** (hydrous sulphate of iron and potassium). Kern County, California. J. S. Drury. May 18, 1891.

12458. **Quicksilver Ore**—Cinnabar. Bradford Mine, Lake County, California. Mrs. H. H. Day. May 19, 1891.

12459. **Quicksilver Ore**—Cinnabar. Ætna Mine, Pope Valley, Napa County, California. Mrs. M. G. Rhodes. May 18, 1891.

12460. **Quicksilver Ore**—Cinnabar. One half mile north of Berryman Station, Alameda County, California. A. V. Tuohy. May 21, 1891.

12461. **Gold,** in Bismutite. Dos Cabezas, Cochise County, Arizona. Mr. Patterson. May 21, 1891.

12462. **Tin Ore.** Deer Lodge, Montana. F. W. Traphagen. May 22, 1891.

12463. **Calcite** (carbonate of calcium). Bigrigg Mine, Egremont, Cumberland, England. Williamsburgh Scientific Society. May 23, 1891.

12464. **Opal**—Common. Guanajuato, Mexico. Williamsburgh Scientific Society. May 23, 1891.

12465. **Matlockite** (oxychloride of lead). Cromford, Derbyshire, England. May 28, 1891.

12466. **Schwartzembergite** (oxychloride and iodide of lead). Chile. May 28, 1891.

12467. **Polycrase** (columbate of titanium, yttrium, and uranium), rich in Scandium. Marietta, Greenville County, South Carolina. May 28, 1891.

12468. **Garnet**—Pink, with Vesuvianite. Morelos, Mexico. May 28, 1891.

12469. **Coloradoite** (telluride of mercury). Smuggler Mine, Boulder County, Colorado. May 28, 1891.

12470. **Leucite** (silicate of aluminum and potassium). Magnet Cove, Arkansas. May 28, 1891.

12471. **Willemite** (silicate of zinc). Franklin Furnace, Sussex County, New Jersey. May 28, 1891.

12472. **Monticellite** (silicate of calcium and magnesium). Magnet Cove, Arkansas. May 28, 1891.

12473. **Herrengrundite** (hydrous sulphate of copper). Herrengrund, Hungary. May 28, 1891.

12474. **Diabase** (olivine augite diabase), with flattened crystals of Magnetite. Weldon, Kern County, California. C. J. E. Taylor. June 2, 1891.

12475. **Gypsum** (hydrous sulphate of calcium), var. Alabaster. Occurs in large quantity in the Cuyama Valley, San Luis Obispo County, California. Myron Angel. June 2, 1891.

This deposit is twenty miles from the landing at Port Harford. It is near a good stream of water sufficient to run a mill, and oak wood for fuel is plentiful and cheap.

12476. **Asphaltum.** Occurs in quantity in the Cuyama Valley, San Luis Obispo County, California. Myron Angel. June 2, 1891.

12477. **Sandstone,** soft and friable, and impregnated with petroleum. From the oil district, Petrolia, Humboldt County, California. A. McGregor. June 2, 1891.

This rock is characteristic of the oil districts in this and other counties of California, and may be considered an indication of petroleum.

12478. **Auriferous Vein Matter**—Hematite. Rose Mine, Morongo District, San Bernardino County, California. G. W. Woodworth. June 4, 1891.

This ore assays from $300 to $500 and over per ton in gold, with traces of silver, and 51 per cent iron. The assay of this specimen is given as $375 gold per ton.
Assay, S. M. B.: $279 07 per ton gold.

12479. **Laumontite** (hydrous silicate of aluminum and calcium). Found near the Grant Mine, on the right bank of the Cucamonga Cañon, San Bernardino County, California. H. Sontag. June 8, 1891.

12480. **Fossils.** From the "oil rocks," Ventura County, California. June 8, 1891.

12481. **Gold Quartz.** Venus Mine, Campo Seco, Calaveras County, California. A. B. Summers. June 11, 1891.

12482. **Calcite** (carbonate of calcium). Melbourne, Victoria, Australia. F. Danvers Power. June 12, 1891.

12483. **Limonite** (hydrate of iron). Pseudomorph after Marcasite. Ydalpom, Shasta County, California. G. W. Silverthorn. June 12, 1891.

12484. **Phillipsite** (hydrous silicate of aluminum, calcium, and potassium), with Phacolite. Melbourne, Victoria, Australia. F. Danvers Power. June 12, 1891.

12485. **Phacolite** with **Mesolite.** Melbourne, Victoria, Australia. F. Danvers Power. June 12, 1891.

12486. **Calcite** (carbonate of calcium). Melbourne, Victoria, Australia. F. Danvers Power. June 12, 1891.

12487. **Mesolite** (hydrous silicate of aluminum, calcium, and sodium). Melbourne, Victoria, Australia. F. Danvers Power. June 12, 1891.

12488. **Phacolite** and **Mesolite.** Melbourne, Victoria, Australia. F. Danvers Power. June 12, 1891.

12489. **Analcite** (hydrous silicate of sodium and aluminum). Flinders, Victoria, Australia. F. Danvers Power. June 12, 1891.

12490. **Natrolite** (hydrous silicate of aluminum and sodium). Flinders, Victoria, Australia. F. Danvers Power. June 12, 1891.

12491. **Malachite** (hydrous carbonate of copper). Burra, South Australia. F. Danvers Power. June 12, 1891.

12492. **Azurite** (hydrous carbonate of copper). Mount Hope, New South Wales, Australia. F. Danvers Power. June 12, 1891.

12493. **Noumeaite** (garnierite). Doa Kainc, New Caledonia. F. Danvers Power. June 12, 1891.

12494. **Embolite** (chloro-bromide of silver), on ironstone. Broken Hill, New South Wales, Australia. F. Danvers Power. June 12, 1891.

12495. **Magnesite** (carbonate of magnesia). Gundagai, New South Wales, Australia. F. Danvers Power. June 12, 1891.

12496. **Cassiterite** (oxide of tin) in Greisen. Mount Wills, Victoria, Australia. F. Danvers Power. June 12, 1891.

12497. **Tin Ore** ("stream," or "alluvial" tin), with a large proportion of tourmaline. Ben Lomond, Tasmania. F. Danvers Power. June 12, 1891.

12498. **Zaratite** (hydrous carbonate of nickel). Heazlewood, Tasmania. F. Danvers Power. June 12, 1891.

12499. **Dialogite** (carbonate of manganese). Zeehan, Tasmania. F. Danvers Power. June 12, 1891.

12500. **Galena**—Antimonial. Heazlewood, Tasmania. F. Danvers Power. June 12, 1891.

12501. **Gold** in Hematite. Mount Lyell, Tasmania. F. Danvers Power. June 12, 1891.

12502. **Crocoite** (chromate of lead). Dundas, Tasmania. F. Danvers Power. June 12, 1891.

12503. **Auriferous Gossan.** Mandurama, New South Wales, Australia. F. Danvers Power. June 12, 1891.

12504. **Cerussite** (carbonate of lead). Broken Hill, New South Wales. F. Danvers Power. June 12, 1891.

12505. **Amazon Stone,** a variety of Microline (silicate of aluminum and potassium). Mount Darling, Barrier Range, New South Wales. F. Danvers Power. June 12, 1891.

12506. **Asbestus** (amphibole and pyroxene). Gundagai, New South Wales. F. Danvers Power. June 12, 1891.

12507. **Sphalerite** (sulphide of zinc). Bethanga, Victoria, Australia. F. Danvers Power. June 12, 1891.

12508. **Pyrrhotite** (magnetic pyrite). Bethanga, Victoria, Australia. F. Danvers Power. June 12, 1891.

12509. **Pyrite** (bisulphide of iron). Bethanga, Victoria, Australia. F. Danvers Power. June 12, 1891.

12510. **Chalcopyrite** (sulphide of copper and iron). Bethanga, Victoria, Australia. F. Danvers Power. June 12, 1891.

12511. **Pyrite**—Arsenical (mispickel). Bethanga, Victoria, Australia. F. Danvers Power. June 12, 1891.

12512. **Auriferous Arsenical Pyrite.** Deep Creek, New South Wales, Australia. F. Danvers Power. June 12, 1891.

12513. **Antimony Ore**—Stibnite. Deep Creek, New South Wales, Australia. F. Danvers Power. June 12, 1891.

12514. **Cervantite** (oxide of antimony). Deep Creek, New South Wales, Australia. F. Danvers Power. June 12, 1891.

12515. **Coal.** Variety known as "Brown" coal. Morwell, Victoria, Australia. F. Danvers Power. June 12, 1891.

12516. **Bituminous Shale**—"Kerosene Shale." Hartley, New South Wales. F. Danvers Power. June 12, 1891.

12517. **Ambrite** (a fossil resin). Kawa Kawa, Bay of Islands, New Zealand. F. Danvers Power. June 12, 1891.

12518. **Pyrophyllite**—Massive (hydrous silicate of aluminum). San Diego, California. Dr. T. C. Stockton. June 12, 1891.

12519. **Copper Ore**—Chalcocite. Abiquiu, New Mexico. F. C. Brodie. June 26, 1891.

12520. **Apatite** (phosphate of calcium), with purple Fluor-spar and Calcite. From a deposit fifty miles north of Peterborough, Canada. F. C. Brodie. June 26, 1891.

12521. **Iron Ore**—Magnetite. Halleck, San Bernardino County, California. P. W. Campbell. June 29, 1891.

12522. **Gold Quartz**, rich in free gold in "leaf" and "wire" forms. Green Mountain Mine, Quartz Valley District, Siskiyou County, California. Allen Bros. June 29, 1891.

12523. **Gold Quartz,** with free gold. Cincinnati Belle Mine, Julian District, San Diego County, California. From the Company. June 29, 1891.

12524. **Kaolin.** Fine plastic, infusible clay, nearly all alumina. Healdsburg, Sonoma County, California. P. H. Shelford. June 29, 1891.

12525. **Chromic Iron.** Hopland, Mendocino County, California. R. D. Lawrence. June 29, 1891.

12526. **Cookeite** (hydrous silicate of aluminum and lithium). Oro Grande, San Bernardino County, California. H. C. Adams. July 16, 1891.

12527. **Gold Quartz.** Galawa Reef, Cawaral District, Queensland, Australia. J. M. Fisher. July 16, 1891.

12528. **Quartz,** opalized variety. Glen Ellen, Sonoma County, California. A. R. Dana. July 16, 1891.

12529. **Gold Quartz,** rich in free gold. Bonanza Mine, Las Animas District, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12530. **Gold Quartz,** rich in both gold and silver. Bonanza Mine, Las Animas District, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12531. **Silver**—Native, in rich ore from the Ocean Wave Mine, Palomas District, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12532. **Silver**—Native, in rich ore from the Palomas Chief Mine, Palomas District, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12533. **Silver Ore** (rich argentiferous galena). Palomas Chief Mine, Palomas District, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12534. **Silver Ore,** with Bornite. Midnight Mine, Apache District, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12535. **Silver Ore.** Silver Monument Mine, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12536. **Silver Ore.** Hoosier Boy Mine, Apache District, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12537. **Silver Ore.** Cecil Mine, Bromide District, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12538. **Silver Ore.** Eclectic Mine, Apache District, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12539. **Silver Ore,** rich in chloride of silver. Homestake Mine, Palomas District, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12540. **Silver Ore.** Miles Standish Mine, Lake Valley, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12541. **Silver Ore,** with Copper. Prospector's Delight Mine, Cuchillo Negro District, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12542. **Silver Ore** (argentiferous galena). Argonaut Mine, Palomas District, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12543. **Silver Ore,** with gold. Goodenough Mine, Apache District, Sierra County, New Mexico. C. H. Laidlaw. July 22, 1891.

12544. **Tremolite** (magnesia—lime amphibole) on quartz. Halstead Mine, Twelve-mile Bar, Plumas County, California. July 23, 1891.

12545. **Calcite** (carbonate of calcium), crystallized. Beach at Santa Barbara, California. C. L. Canfield. July 23, 1891.

12546. **Calcite** (carbonate of calcium), crystallized. Stank Mine, Lancashire, England. Williamsburgh Scientific Society. July 31, 1891.

12547. **Copper Ore**—Chalcopyrite. Henderson's Mine, near Kirbyville, Josephine County, Oregon. W. Worthington. August 3, 1891.

12548. **Talc** (hydrous silicate of magnesium). Tom Neal Mountain, near Bayles, Shasta County, California. August 13, 1891.

12549. **Feldspar**—Orthoclase (silicate of aluminum and potassium). Tom Neal Mountain, near Bayles, Shasta County, California. August 13, 1891.

12550. **Pyrite** (bisulphide of iron) in indurated clay. Tom Neal Mountain, near Bayles, Shasta County, California. August 13, 1891.

12551. **Currency**—"Shin-plaster," face value six and one quarter cents. Issued at Baltimore, Maryland, January 1, 1841. D. C. Stone. August 17, 1891.

12552. **Currency**—"Shin-plaster," face value twelve and one half cents. Issued at Baltimore, Maryland, November, 1815. D. C. Stone. August 17, 1891.

12553. **Moonstone.** Ceylon, India. E. A. de Saba. August 19, 1891.

12554. **Building Stone.** Napa, California. J. J. Newsom. August 19, 1891.

12555. **Obsidian**—Green. Kernville, Kern County, California. D. C. Tolman. August 19, 1891.

12556. **Garnet Rock.** Composed of crystals of andradite garnet, and used as a flux in smelting silver ores in Arizona. August 19, 1891.

12557. **Quartz.** Crystals of green quartz from the Willard Mine, Magalia, Butte County, California. August 19, 1891.

12558. **Schist**—Tremolite Schist. Rich Bar, Plumas County, California. August 19, 1891.

12559. **Lava**—Basaltic. Mount Claremont, Plumas County, California. August 19, 1891.

12560. **Porphyry**—Feldspar porphyry. Slate Creek, Plumas County, California. August 19, 1891.

12561. **Schist**—Talcose mineralized schist, with pyrite. Wall rock of the Whiting Mine, French Ravine, Plumas County, California. August 19, 1891.

12562. **Schist**—Talcose. Wall rock of the Shenandoah Mine, French Ravine, Plumas County, California. August 19, 1891.

12563. **Auriferous Gravel.** Best Mine, near West Fork of Butte Creek, Butte County, California. August 19, 1891.

The cementing matter of this gravel is aragonite, locally termed silica.

12564. **Gold Quartz,** with telluride of gold. Nelson Mine, Butte Bar, Plumas County, California. August 19, 1891.

12565. **Gold Quartz.** Dude Mine, Twelve-mile Bar, Plumas County, California. W. E. Duncan. August 19, 1891.

12566. **Gold Quartz.** From Crosscut No. 2, Eagle Gulch Tunnel, 300-foot level of the Diadem Mine, Plumas County, California. August 19, 1891.

This specimen has been calcined, and the gold, which was originally in combination with tellurium, is now visible in small globules all over the surface of the rock.

12567. **Copper Matte.** From the works of the Arizona Copper Company, Clifton, Arizona. H. K. Behn. August 29, 1891.

12568. **Gold** on silicious sinter. Sulphur Creek, Colusa County, California. Melville Atwood. September 1, 1891.

12569. **Gold Quartz,** very rich in free gold in leaf form amongst the pyrite. Bonanza Mine, Las Animas District, Sierra County, New Mexico. C. H. Laidlaw. September 1, 1891.

12570. **Gold Quartz,** from near the surface. Bonanza Mine, Las Animas District, Sierra County, New Mexico. C. H. Laidlaw. September 1, 1891.

12571. **Gold Quartz,** specimen showing the general character of the ore. Bonanza Mine, Las Animas District, Sierra County, New Mexico. C. H. Laidlaw. September 1, 1891.

12572. **Silver Ore**—Argentite and Pyrargyrite. Gypsy Mine, Black Range District, Kingston, Sierra County, New Mexico. C. H. Laidlaw. September 1, 1891.

12573. **Silver Ore**—Cerargyrite in Talc. Very rich ore. Brush Heap Mine, Black Range District, Kingston, Sierra County, New Mexico. C. H. Laidlaw. September 1, 1891.

12574. **Silver Ore**—Argentite in Talc. Very rich ore, said to assay 6,000 ounces silver and $500 gold per ton. Cock Robin Mine, Bromide District, Sierra County, New Mexico. C. H. Laidlaw. September 1, 1891.

12575. **Marble** (five specimens). Hillsborough, Sierra County, New Mexico. C. H. Laidlaw. September 1, 1891.

12576. **Coal.** North Fork of Nooksack River, Whatcom County, Washington. F. Cahill. September 3, 1891.

ANALYSIS GIVEN WITH SPECIMEN.

Moisture	3.65
Volatile hydrocarbons	41.26
Fixed carbon	49.70
Sulphur	1.14
Ash	4.25
	100.00

12577. **Gold,** on Porphyry partially decomposed and colored green by iron. Cerro Colorado, near Batopilas, Chihuahua, Mexico. Marcus A. Delfs. September 11, 1891.

12578. **Silver Ore.** Orpineda Mine, Southern Chihuahua, Mexico. Henry Tripp. September 12, 1891.

12579. **Quicksilver Ore**—Rich Cinnabar. Abbott Mine, Colusa County, California. W. T. Bromley. September 14, 1891.

12580. **Iron Ore**—Hematite. Glenbrook, Lake County, California. H. A. Aldrich. September 16, 1891.

12581. **Gold Quartz.** Oak Consolidated Mine, Grizzly Flat, El Dorado County, California. James F. Ryan. September 16, 1891.

12582. **Iron Ore**—Limonite or "Bog Ore." Near Glenbrook, Lake County, California. H. A. Aldrich. September 18, 1891.

12583. **Magnesite** (carbonate of magnesia). Glenbrook, Lake County, California. H. A. Aldrich. September 18, 1891.

12584. **Barite** (sulphate of barium). Glenbrook, Lake County, California. H. A. Aldrich. September 18, 1891.

12585. **Calcite** (carbonate of calcium). A stalactitic formation found in a cave on the South Fork of Pit River, Modoc County, California. George Knight. September 18, 1891.

12586. **Section of Post** from the mill at the Keltz Mine, Tuolumne County, California, showing the ravages of the white ants (Termites?). W. I. Sharwood. September 18, 1891.

12587. **Molybdenite** (sulphide of molybdenum) in Granite. Tom Neal Mountain, five miles from Delta, Shasta County, California. Edward Sanders. September 18, 1891.

12588. **Pyrite** (bisulphide of iron). Fine crystals on silver ore from the Rosario Mine, Birmoa, Durango, Mexico. Henry Tripp. September 19, 1891.

12589. **Calcite** (carbonate of calcium) on crystallized quartz. La Luz Mine, Guanajuato, Mexico. James F. Brooks. September 28, 1891.

12590. **Calcite** (carbonate of calcium) crystals. La Luz Mine, Guanajuato, Mexico. James F. Brooks. September 28, 1891.

12591. **Copper**—Native. South Carradon Mine, Cornwall, England. James F. Brooks. September 28, 1891.

12592. **Cuprite** (oxide of copper), var. "Tile ore." South Carradon Mine, Cornwall, England. James F. Brooks. September 28, 1891.

12593. **Tin Ore.** West Phenix Mine, Cornwall, England. James F. Brooks. September 28, 1891.

12594. **Silver Ore**—Argentite. Bolinitas Mine, La Luz, Guanajuato, Mexico. James F. Brooks. September 28, 1891.

12595. **Garnet** (silicate of aluminum, iron, calcium, etc.). Mexico. James F. Brooks. September 28, 1891.

12596. **Fossil Shark Teeth.** From the grit above the bituminous strata on O'Neal's Ranch, Point Arena, Mendocino County, California. October 2, 1891.

The round tooth is probably that of a young seal.

12597. **Pyrargyrite** (sulph-antimonide of silver) in very fine crystals. Copiapo, Chile. Hon. M. Rosenstock. October 2, 1891.

12598. **Iodyrite** (iodide of silver), **Embolite** (chlorobromide of silver), and **Cerargyrite** (chloride of silver). San Augustin Mine, Tarapaca, Chile. Hon. M. Rosenstock. October 2, 1891.

12599. **Limestone**—Hydraulic. From near Los Angeles, California. George W. Hazard. October 3, 1891.

12600. **Copper**—Native. Copper Island. Gus. Reimers. October 3, 1891.

12601. **Gold Quartz.** Kehoe Mine, four miles east from Hornitos, Mariposa County, California. Jerome B. Brown. Vein is 8 feet wide. October 6, 1891.

12602. **Sphalerite** (sulphide of zinc) in fine crystals. Center Creek Mines, Webb City, Jasper County, Missouri. E. Hooper. October 7, 1891.

12603. **Pyrite** (bisulphide of iron), variety known as "cockscomb pyrites." Center Creek Mines, Webb City, Jasper County, Missouri. E. Hooper. October 7, 1891.

12604. **Galenite** (sulphide of lead), crystallized. Center Creek Mines, Webb City, Jasper County, Missouri. E. Hooper. October 7, 1891.

12605. **Gold Quartz**, from foot wall. Cargo Muchacho Mine, San Diego County, California. October 7, 1891.

12606. **Sphalerite** (sulphide of zinc). Advance Mine, North Fork District, Fresno County, California. Thomas Agnew. October 10, 1891.

12607. **Silver Ore.** De Soto Mine, North Fork District, Fresno County, California. October 10, 1891.

12608. **Silver Ore.** Carbonate ore. De Soto Mine, North Fork District, Fresno County, California. October 10, 1891.

12609. **Silver Ore** (argentiferous galena). From a vein on the west side of the San Joaquin River, on which are located the Lottie, Madera, Esperanza, and several other claims. North Fork District, Fresno County, California. October 10, 1891.

12610. **Silver Ore.** Silver Peak vein, north end of the North Fork District, Fresno County, California. October 10, 1891.

12611. **Gold Quartz**, showing free gold. Grizzly Mine, Los Burros District, Monterey County, California. A. E. Moore. October 14, 1891.

12612. **Auriferous Vein Matter.** Moore Mine, Los Burros District, Monterey County, California. A. E. Moore. October 14, 1891.

12613. **Quicksilver Ore.** New Almaden Mine, Santa Clara County, California. Mrs. H. H. Day. October 14, 1891.

12614. **Gold Quartz.** 1,350-foot level of the Kennedy Mine, near Jackson, Amador County, California. J. F. Park, Superintendent. October 20, 1891.

12615. **Gold Quartz.** Meteor Mine, 8 miles from San Andreas, Calaveras County, California. Wm. A. M. McNaughten, Superintendent. October 20, 1891.

12616. **Sulphur**—Crude. Bromley's Mine, Sulphur Creek, Colusa County, California. W. L. Bromley. October 24, 1891.

12617. **Fluorite** (fluoride of calcium), with cockscomb pyrites and galena. Cumberland, England. Williamsburgh Scientific Society. October 24, 1891.

12618. **Quartz**—Chalcedonic, with cinnabar in cavities. Manhattan Mine, Napa County, California. October 24, 1891.

12619. **Pyrite**—Botryoidal (bisulphide of iron). Ætna Mine, Pope Valley, Napa County, California. October 24, 1891.

12620. **Quicksilver Ore.** Napa Consolidated Mine, Oat Hill, Napa County, California. B. M. Newcomb. October 24, 1891.

12621. **Quicksilver Ore**—Cinnabar in slate and quartz, with pyrite. Bradford Mine, Lake County, California. From the Company. October 24, 1891.

12622. **Quicksilver Ore**—Cinnabar in "cauliflower" quartz. Bradford Mine, Lake County, California. From the Company. October 24, 1891.

12623. **Auriferous Vein Matter**—Chalcopyrite, with telluride of gold. American Mine, Ouray, Colorado. J. Blackburn. November 3, 1891.

12624. **Volcanic Lapilli.** From Mount Eden, an extinct volcano near Auckland, New Zealand. J. J. Howard. November 3, 1891.

12625. **Basalt,** with crystals of aragonite in cavities. Sulphur Creek, Colusa County, California. November 5, 1891.

12626. **Model of Gold Nugget,** found September 23, 1891, at a depth of over 300 feet below the surface, in the Ruby Mine, Forest City, Sierra County, California. Prepared and presented by C. D. Voy. November 6, 1891.

Weight, before melting ..... 201.56 ounces, troy.
Weight, after melting ..... 183.30 ounces, troy.
Value $3,240 50

Nuggets worth from $200 to $800 have frequently been found in this mine.

12627. **Tin Ore.** Wheal Uny Mine, Redruth, Cornwall, England. T. H. Simmons. November 9, 1891.

12628. **Vivianite** (phosphate of iron), variety known as "blue iron earth." Maple Creek, Humboldt County, California. November 11, 1891.

12629. **Chromic Iron,** showing a peculiar polished surface. Tyson Mines, Del Norte County, California. November 11, 1891.

12630. **Macoma nasuta.** Con. Pliocene fossil. Swithenbank's Creek and Scotia, Humboldt County, California. November 13, 1891.

12631. **Arca sulcicosta.** Gabb. Pliocene fossil. Boulder Creek, Humboldt County, California. November 13, 1891.

12632. **Mactra albaria.** Con. Pliocene fossil. Boulder Creek, Humboldt County, California. November 13, 1891.

12633. **Schizothœrus nutalli.** Con. Pliocene fossil. Scotia, Humboldt County, California. November 13, 1891.

12634. **Macoma edulis.** Nuttall. Pliocene fossil. Jacoby Creek, Humboldt County, California. November 13, 1891.

12635. **Scutella interlineata.** Stimpson. Pliocene fossil. Scotia, Humboldt County, California. November 13, 1891.

12636. **Natica clausa.** Brod. and Sby. Pliocene fossil. Scotia, Humboldt County, California. November 13, 1891.

12637. **Tapes staleyi.** Gabb. Pliocene fossil. Garberville and Scotia, Humboldt County, California. November 13, 1891.

12638. **Tellina bodegensis.** Hinds. Pliocene fossil. Boulder Creek, Humboldt County, California. November 13, 1891.

12639. **Neptunea altispira.** Gabb. Pliocene fossil. Scotia, Humboldt County, California. November 13, 1891.

12640. **Callista voyi.** Gabb. Pliocene fossil. Scotia, Humboldt County, California. November 13, 1891.

12641. **Mytilus californianus.** Con. Pliocene fossil. Boulder Creek and Scotia, Humboldt County, California. November 13, 1891.

12642. **Psephis lordi.** Baird. Pliocene fossil. Scotia, Humboldt County, California. November 13, 1891.

12643. **Crepidula grandis.** Midd. Pliocene fossil. Adult and young. Boulder Creek, Humboldt County, California. November 13, 1891.

12644. **Chrysodomus tabulatus.** Baird. Pliocene fossil. Boulder Creek and Scotia, Humboldt County, California. November 13, 1891.

12645. **Machæra patula.** Dixon. Pliocene fossil. Scotia, Humboldt County, California. November 13, 1891.

12646. **Macoma inquinata.** Desh. Pliocene fossil. Boulder Creek, Humboldt County, California. November 13, 1891.

12647. **Nassa californiana.** Con. Pliocene fossil. Boulder Creek, Humboldt County, California. November 13, 1891.

12648. **Solen sicarius.** Gould. Pliocene fossil. Boulder Creek, Humboldt County, California. November 13, 1891.

12649. **Solen ensis.** Linn. Pliocene fossil. Scotia, Humboldt County, California. November 13, 1891.

12650. **Tapes staleyi.** Gabb. Pliocene fossil. Boulder Creek and Scotia, Humboldt County, California. November 13, 1891.

12651. **Cardium meekianum.** Gabb. Pliocene fossil. Scotia, Humboldt County, California. November 13, 1891.

12652. **Tin Ore.** Temescal, San Bernardino County, California. E. P. Marsellus. November 13, 1891.

12653. **Pebbles.** Beach two miles northwest of Bolinas, Marin County, California. November 13, 1891.

12654. **Lignite.** Preston Mine, Maple Creek, Humboldt County, California. November 17, 1891.

12655. **Silver Ore,** with gold. Consolidated Mine, on the Scott Sheep Range, Salmon Creek, ten miles northwest from Phillipsville, Humboldt County, California. November 17, 1891.

12656. **Gold**—Crystallized. Bonanza Mine of the Albany Mining and Milling Company, Linn County, Oregon. A. Halvorsen. November 25, 1891.

12657. **Gold Quartz,** showing free gold. Bonanza Mine, Linn County, Oregon. A. Halvorsen. November 25, 1891.

12658. **Aragonite** (carbonate of calcium). Coal Cañon, west side of Mt. Downey (or Sugarloaf Mountain), Santa Ana Range, Orange County, California. Geo. F. Hoyt. November 28, 1891.

12659. **Vesuvianite** (silicate of aluminum, iron, calcium, and magnesium). Santa Cruz Mountains, California. November 28, 1891.

12660. **Astrophyllite** (silicate of titanium, magnesia, iron, and sodium). El Paso County, Colorado. J. Z. Davis. November 28, 1891.

12661. **Lepidolite** (silicate of aluminum, potassium, and lithium). Rozena, Moravia. Williamsburgh Scientific Society. November 30, 1891.

12662. **Skull of an Indian,** supposed to have been either a chief or a doctor, as all others of the tribe to which he belonged are cremated. Baranoff Island, Alaska. W. T. Turner. November 30, 1891.

12663. **Alexandrite,** a variety of chrysoberyl (oxide of aluminum and glucinum). Takowaja, Siberia. December 2, 1891.

12664. **Aguilarite** (sulpho-selenide of silver). San Carlos Mine, Guanajuato, Mexico. December 2, 1891.

12665. **Amalgam** (silver and mercury) crystals. Moschellandsberg, Pfalz, Germany. December 2, 1891.

12666. **Arfvedsonite** (silicate of iron, calcium, and sodium). El Paso County, Colorado. December 2, 1891.

12667. **Bastnasite** (chloro-carbonate of cerium and lanthanum). West Cheyenne Cañon, Colorado. December 2, 1891.

12668. **Boracite** (borate of magnesium) crystal. Luneberg, Hanover. December 2, 1891.

12669. **Polybasite** (sulph-antimonide of silver). Two Sisters Mine, near Lawson, Colorado. December 2, 1891.

12670. **Quartz crystal** in white marble. Cararra, Italy. December 2, 1891.

12671. **Stephanite** (sulph-antimonide of silver). Freiberg, Saxony. December 2, 1891.

12672. **Titanite** (silico-titanate of calcium). Tilly Foster Mine, near Brewsters, New York. December 2, 1891.

12673. **Tridymite,** a variety of quartz. Cerro San Cristobal, near Pachuca, Mexico. December 2, 1891.

12674. **Hessite** (telluride of silver). Lalathua, Transylvania. December 2, 1891.

12675. **Magnesite** (carbonate of magnesia) of excellent quality. From a large body near Walter's Springs, Pope Valley, Napa County, California. J. C. Sullinger. December 3, 1891.

12676. **Teeth of Hybodus grossiconus** (fish). Agassiz. Jurassic fossil. Stonesfield, England. December 7, 1891.

12677. **Teeth of Teleosaurus.** Jurassic fossil. Stonesfield, England. December 7, 1891.

12678. **Leaf of Paleozamia megaphylla.** Jurassic fossil. Stonesfield, England. December 7, 1891.

12679. **Ostrea sowerbii.** Jurassic fossil. Stonesfield, England. December 7, 1891.

12680. **Rhynconella obsoleta.** Jurassic fossil. Stonesfield, England. December 7, 1891.

12681. **Carpolithus lindleyanus** (seed). Jurassic fossil. Stonesfield, England. December 7, 1891.

12682. **Carpolithus diospyriformis** (seed). Stern. Jurassic fossil. Stonesfield, England. December 7, 1891.

12683. **Phasianella elegans.** Jurassic fossil. Stonesfield, England. December 7, 1891.

12684. **Clementia subdiaphana.** Carp. Pliocene fossil. Scotia, Humboldt County, California. December 7, 1891.

12685. **Saxidomus gibbosus.** Gabb. Pliocene fossil. Eel River, below Garberville, Humboldt County, California. December 7, 1891.

12686. **Standella californica.** Con. Pliocene fossil. Eel River, below Garberville, Humboldt County, California. December 7, 1891.

12687. **Drillia voyi.** Gabb. Pliocene fossil. Bolinas, Marin County, California. December 7, 1891.

12688. **Nassa californiana.** Con. Pliocene fossil. Bolinas, Marin County, California. December 7, 1891.

12689. **Macoma nasuta.** Con. Pliocene fossil. Bolinas, Marin County, California. December 7, 1891.

12690. **First United States Cent,** known as the Ring, or Franklin Cent. Two specimens. Horatio N. Rust. December 7, 1891.

July 6, 1787, the United States Government ordered the minting of its first coin. Messrs. Broome & Platt, of New Haven, Conn., did some part of the coinage. About the year 1860 the donor of these specimens found, and still retains, the original dies among their effects in New Haven. The dies were taken to Waterbury, Conn., and a few coins were struck for cabinet specimens, the above being two of the restrikes.

12691. **Rubellite**—Red Tourmaline in Lepidolite (lithium mica). San Diego, California. December 7, 1891.

12692. **Tourmaline** (black) in Granite. Temecula Cañon, San Diego County, California. December 7, 1891.

12693. **Tourmaline** (green) in Granite. Temecula Cañon, San Diego County, California. December 7, 1891.

12694. **Granite.** Variety known as "Graphic Granite." Temecula Cañon, San Diego County, California. December 7, 1891.

12695. **Muscovite Mica**—Contorted. Temecula Cañon, San Diego County, California. December 7, 1891.

12696. **Lepidolite** (lithium mica, silicate of aluminum, potassium, and lithium), with quartz and Rubellite. Temecula Cañon, San Diego County, California. December 7, 1891.

12697. **Lepidolite** (lithium mica, silicate of aluminum, potassium, and lithium), three varieties. Temecula Cañon, San Diego County, California. December 7, 1891.

12698. **Tin Ore.** Rich ore from the Temescal Tin Mines, San Jacinto Estate, San Bernardino County, California. From the Company. December 7, 1891.

12699. **Vein Matter.** Temescal Tin Mines, San Jacinto Estate, San Bernardino County, California. December 7, 1891.

12700. **Wall Rock**—Granite, inclosing rock of the ore veins at the Temescal Tin Mines, San Jacinto Estate, San Bernardino County, California. December 7, 1891.

12701. **Gold Quartz.** Elder Mine, Auburn, Placer County, California. Jerome B. Brown. December 7, 1891.

12702. **Coal**—Lignite. Eight and one half miles north of Yreka, Siskiyou County, California. December 17, 1891.

12703. **Fossil Leaf Impressions.** Tertiary. From the formation overlying the auriferous gravel, near Yreka, Siskiyou County, California. December 17, 1891.

12704. **Gyrodes expansa.** Cretaceous fossil. Eight and one half miles northeast from Yreka, Siskiyou County, California. Miss M. Hearn. December 17, 1891.

12705. **Neptunea gracilis.** Gabb. Cretaceous fossil. Eight and one half miles northeast from Yreka, Siskiyou County, California. Miss M. Hearn. December 17, 1891.

12706. **Inoceramus piochii.** Cretaceous fossil. Eight and one half miles northeast from Yreka, Siskiyou County, California. Miss M. Hearn. December 17, 1891.

12707. **Staurolite** (silicate of magnesium and iron) and **Cyanite.** St. Gothard, Switzerland. Williamsburgh Scientific Society. December 17, 1891.

12708. **Gypsum,** var. Selenite (hydrous sulphate of calcium). South of South Riverside, San Bernardino County, California. December 22, 1891.

12709. **Salt.** From the works of the New Liverpool Salt Company at Salton, San Diego County, California. December 22, 1891.

12710. **Wood,** and Asphaltum having the form and appearance of wood, and which may have replaced a decayed root. Found at a depth of fifteen feet in an asphaltum lake belonging to the Santa Maria Asphalt Company, Santa Barbara, California. M. Maryanski, E.M. December 23, 1891.

12711. **Manganese Ore**—Pyrolusite. Radovich Mine, Red Mountain District, Stanislaus County, California. L. Radovich. December 24, 1891.

12712. **Agate,** cut and polished. Suisun, Solano County, California. George H. Suhren. January 6, 1892.

12713. **Steatite.** Variety known as "French Chalk." Hazel Creek, Shasta County, California. Thomas N. Jones. January 6, 1892.

12714. **Silver Ore.** Alabama Mine, Backbone District, Shasta County, California. T. McMillan. January 6, 1892.

12715. **Rutile** (titanic acid) in Granite. The first occurrence of this mineral noted in California. Eureka, Humboldt County, California. F. McGowan. January 6, 1892.

12716. **Gold** in crystallized quartz. Delhi Mine, Columbia Hill, Nevada County, California. R. McMurray. January 6, 1892.

12717. **Cinnabar** (sulphide of mercury) in Pyrolusite. Stony Ford, Colusa County, California. T. C. Sisk. January 6, 1892.

12718. **Priene oregonensis.** Redfield. Pliocene fossil. Scotia, Humboldt County, California. January 6, 1892.

12719. **Echinarachinus excentricus.** Escholtz. Pliocene fossil. Scotia, Humboldt County, California. January 6, 1892.

12720. **"Bituminous Rock."** Near San Diego, California. C. C. Loomis. January 6, 1892.

ANALYSIS, S. M. B.:

Bitumen	16.6
Sand	80.8
Clay and Lime	2.6
	100.0

Heated for twenty-four hours to 250 degrees Fah., this material loses only 2.4 per cent of its weight.

12721. **Cassiterite** (oxide of tin). Zinnwald, Saxony. January 9, 1892.

12722. **Barite** (sulphate of barium), crystallized. Marienberg, Saxony. January 9, 1892.

12723. **Barite** (sulphate of barium), crystallized. Freiberg, Saxony. January 9, 1892.

12724. **Argentite** (sulphide of silver) on Barite. Freiberg, Saxony. January 9, 1892.

12725. **Datolite** (boro-silicate of lime). Aussig, Bohemia. January 9, 1892.

12726. **Asbolite** (earthy cobalt and manganese). Schneeberg, Saxony. January 9, 1892.

12727. **Wolfram** (tungstate of manganese and iron). Zinnwald, Saxony. January 9, 1892.

12728. **Proustite** (sulph-arsenide of silver). Freiberg, Saxony. January 9, 1892.

12729. **Zinc Blende** (sulphide of zinc), with Chalcopyrite and Mispickel. Freiberg, Saxony. January 9, 1892.

12730. **Smaltite** (arsenide of cobalt and nickel), with native Bismuth. Schneeberg, Saxony. January 9, 1892.

12731. **Chloanthite**—A variety of Smaltite. Schneeberg, Saxony. January 9, 1892.

12732. **Hematite**—Red (sesquioxide of iron). Unterblauenthal, Saxony. January 9, 1892.

12733. **Hematite**—Micaceous (sesquioxide of iron). Elba. January 9, 1892.

12734. **Cupreous Slate.** Worked as a copper ore. Mansfield, Germany. January 9, 1892.

12735. **Iron Ore**—Hematite. Spain. January 9, 1892.

12736. **Dendrites** of oxide of manganese. Ogdensburg, New Jersey. January 9, 1892.

12737. **Iron Ore**—Hematite. Ogdensburg, New Jersey. January 9, 1892.

12738. **Calcite** (carbonate of calcium). Franklin, New Jersey. January 9, 1892.

12739. **Fluorite**—White (fluoride of calcium). Franklin, New Jersey. January 9, 1892.

12740. **Zinc Blende** (sulphide of zinc). Franklin, New Jersey. January 9, 1892.

12741. **Franklinite** (oxide of iron, zinc, and manganese). Franklin, New Jersey. January 9, 1892.

12742. **Willemite** (silicate of zinc). Franklin, New Jersey. January 9, 1892.

12743. **Fowlerite** (silicate of manganese). Franklin, New Jersey. January 9, 1892.

12744. **Biotite** (mica, silicate of iron, aluminum, potassium, and magnesium). Franklin, New Jersey. January 9, 1892.

12745. **Calcite** (carbonate of calcium). Santa Eulalia, Chihuahua, Mexico. January 9, 1892.

12746. **Zinc Blende** (sulphide of zinc). Cusihuiriachic, Chihuahua, Mexico. January 9, 1892.

12747. **Galenite** (sulphide of lead). Cusihuiriachic, Mexico. January 9, 1892.

12748. **Tetrahedrite** (sulph-antimonide of copper). Cusihuiriachic, Mexico. January 9, 1892.

12749. **Obsidian.** Cusihuiriachic, Mexico. January 9, 1892.

12750. **Iron Ore**—Magnetite. Exposed in large areas one league east from the Pacific Ocean, and from fifteen to thirty-five leagues from the port of Corinto, Leon, Nicaragua. J. Crawford. January 9, 1892.

12751. **Silver Ore.** Caucarache, Pimo, Peru. January 11, 1892.

12752. **Silver Ore.** Tres Amigos Mine, Yauli, Peru. January 11, 1892.

12753. **Silver Ore.** Milagros Mine, Yauli, Peru. January 11, 1892.

12754. **Silver Ore,** with Pyrargyrite. Carahuacra, Yauli, Peru. January 11, 1892.

12755. **Copper Ore**—Tetrahedrite. Socabon, Oruro, Bolivia. January 11, 1892.

12756. **Copper Ore**—Tetrahedrite. San José, Oruro, Bolivia. January 11, 1892.

12757. **Lead Ore**—Galena. Pimo, Peru. January 11, 1892.

12758. **Antimony Ore**—Stibnite. Eliza Mine, Yauli, Peru. January 11, 1892.

12759. **Silver Ore,** high grade. Esperanza Mine, Yauli, Peru. January 11, 1892.

12760. **Tin Ore.** Challa-Apachete, Oruro, Bolivia. January 11, 1892.

12761. **Iron Ore**—Brown Hematite. Challa-Apachete, Oruro, Bolivia. January 11, 1892.

12762. **Iron Ore**—"Bog Ore." From a deposit at the altitude of 16,800 feet, at Auanea, Poto, Peru. January 11, 1892.

12763. **Bituminous Shale,** used as fuel. Cerro de Pasco, Peru. January 11, 1892.

12764. **Selenite** (hydrous sulphate of calcium), in crystals inclosing others; usually called "Phantom Crystals." Ellsworth, Ohio. M. Braverman. January 12, 1892.

12765. **Fragment of a Meteorite** of the stony variety. Cayuga County, New York. M. Braverman. January 12, 1892.

12766. **Fluorite** (fluoride of calcium). Felix Mine, Azusa, Los Angeles County, California. W. H. Adams, Jr. January 14, 1892.

12767. **Dolomite** (carbonate of lime and magnesia). Grant Gypsum Mine, western slope of the Santa Ana Mountains, Orange County, California. January 14, 1892.

12768. **Lead Ore** (carrying a little silver). Alma Mine, Santiago District, Santa Ana Mountains, Orange County, California. January 14, 1892.

12769. **Gold Quartz.** Admiralty Island, Alaska. Thomas Donland. January 15, 1892.

12770. **Gold Quartz.** Silver Bow Basin, Alaska. Thomas Donland. January 15, 1892.

12771. **Silver Ore.** Reynolds Mine, Sheep Creek, Alaska. Thomas Donland. January 15, 1892.

12772. **Liropecten crassicardo.** Con. Tertiary fossil (variety with fifteen ribs). Ventura County, California. January 15, 1892.

12773. **Tellina ovoides.** Gabb. Cretaceous fossil. Santa Ana Mountains, Orange County, California. January 15, 1892.

12774. **Cordiera mitræformis.** Gabb. Cretaceous fossil. Santa Ana Mountains, Orange County, California. January 15, 1892.

12775. **Venus varians.** Gabb. Cretaceous fossil. Santa Ana Mountains, Orange County, California. January 15, 1892.

12776. **Axinæa veatchii** and **A. sagittata.** Gabb. Cretaceous fossils. Santa Ana Mountains, Orange County, California. January 15, 1892.

12777. **Amauropsis alveata.** Con. Cretaceous fossil. Santa Ana Mountains, Orange County, California. January 15, 1892.

12778. **Meretrix horni.** Gabb. Cretaceous fossil. Santa Ana Mountains, Orange County, California. January 15, 1892.

12779. **Aucella piochii.** Gabb. Cretaceous fossil. Sulphur Creek, and Peterson Ranch, Colusa County, California. January 16, 1892.

12780. **Cardita planicosta.** Lam. (C. horni, Gabb.) Cretaceous (Eocene) fossil. West Buttes, Sutter County, California. January 16, 1892.

12781. **Morio** (Sconsia) **tuberculatus.** Gabb. Cretaceous (Eocene) fossil. Brockman Ranch, West Buttes, Sutter County, California. January 16, 1892.

12782. **Dentalium stramineum.** Gabb. Cretaceous fossil. Peterson Ranch, Sites, Colusa County, California. January 16, 1892.

12783. **Arca breweriana.** Gabb. Cretaceous fossil. Peterson Ranch, Sites, Colusa County, California. January 16, 1892.

12784. **Trigonia tryoniana.** Gabb. Cretaceous fossil. Peterson Ranch, Sites, Colusa County, California. January 16, 1892.

12785. **Actæonina californica.** Gabb. Cretaceous fossil. Peterson Ranch, Sites, Colusa County, California. January 16, 1892.

12786. **Cucullæa truncata.** Gabb. Cretaceous fossil. Peterson Ranch, Sites, Colusa County, California. January 16, 1892.

12787. **Lunatia avellana.** Gabb. Cretaceous fossil. Peterson Ranch, Sites, Colusa County, California. January 16, 1892.

12788. **Fossil Tubes of Annelids.** Gabb. Cretaceous fossil. Peterson Ranch, Sites, Colusa County, California. January 16, 1892.

12789. **Crassatella** (Astarte) **tuscana.** Gabb. Cretaceous fossil. Tuscan Springs, Tehama County, California. January 16, 1892.

12790. **Aporrhais** (Auchura) **falciformis.** (Spires only.) Gabb. Cretaceous fossil. Tuscan Springs, Tehama County, California. January 16, 1892.

12791. **Volutilithes navarroensis.** Shumard. Cretaceous fossil. Tuscan Springs, Tehama County, California. January 16, 1892.

12792. **Axinæa veatchii.** Gabb. Cretaceous fossil. Tuscan Springs, Tehama County, California. January 16, 1892.

12793. **Neptunea** (Eripachya) **ponderosa.** Gabb. Cretaceous fossil. Tuscan Springs, Tehama County, California. January 16, 1892.

12794. **Quartz**—Agate and Chalcedony. Shasta Valley, Siskiyou County, California. A. B. Swan. January 18, 1892.

12795. **Limestone.** Quarry two miles northwest from Colfax, Placer County, California. Dr. J. G. Cooper. January 18, 1892.

12796. **Aragonite** (carbonate of calcium), two specimens. Stony Ford, Colusa County, California. Horticultural Society of Colusa. January 18, 1892.

12797. **Auriferous Vein Matter**, with Cinnabar. Clyde Mine, Sulphur Creek, Colusa County, California. Horticultural Society of Colusa. January 18, 1892.

12798. **Gold** on a siliceous rock which is probably of aqueous origin. (See Nos. 9466, 11090, and 12568.) Clyde Mine, Sulphur Creek, Colusa County, California. Horticultural Society of Colusa. January 18, 1892.

12799. **Copper Ore.** Lion Mine, T. 17 N., R. 6 W., Colusa County, California. Horticultural Society of Colusa. January 18, 1892.

12800. **Copper Ore.** Mary Union Mine, T. 17 N., R. 6 W., Colusa County, California. Horticultural Society of Colusa. January 18, 1892.

12801. **Copper Ore.** Copper Hill Mine, near Stony Creek, Colusa County, California. Horticultural Society of Colusa. January 18, 1892.

12802. **Copper Ore.** Union Mine, Sulphur Creek, Colusa County, California. Horticultural Society of Colusa. January 18, 1892.

12803. **Quicksilver Ore**—Rich Cinnabar. Abbott Mine, Sulphur Creek, Lake County, California. Horticultural Society of Colusa. January 18, 1892.

12804. **Limonite Concretion.** Colusa County, California. Horticultural Society of Colusa. January 18, 1892.

12805. **Coal**—Lignite. Said to be from three to four feet thick. Sulphur Creek, Colusa County, California. Horticultural Society of Colusa. January 18, 1892.

12806. **Ammonites batesii.** Trask. Cretaceous fossil. Peterson Ranch, near Sites, Colusa County, California. P. R. Peterson. January 18, 1892.

12807. **Ammonites remondi.** Gabb. Cretaceous fossil. Peterson Ranch, near Sites, Colusa County, California. P. R. Peterson. January 18, 1892.

12808. **Ammonites traski.** Gabb. Cretaceous fossil. Peterson Ranch, near Sites, Colusa County, California. P. R. Peterson. January 18, 1892.

12809. **Physa humerosa.** Gould. Quaternary fossil. Colorado Desert, San Diego County, California. January 18, 1892.

12810. **Building Stone**—Sandstone of excellent quality. Quarry near Sites, Colusa County, California. January 19, 1892.

12811. **Gold Quartz.** Pacific Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12812. **Gold Quartz.** Belvoir Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12813. **Gold Quartz.** Moore Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12814. **Gold Quartz.** Hathaway Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12815. **Gold Quartz.** Doig Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12816. **Gold Quartz.** Rhoads & Lambert Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12817. **Gold Quartz.** Southern Cross Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12818. **Gold Quartz.** Boulder Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12819. **Gold Quartz.** Norfolk Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12820. **Gold Quartz.** White Cloud Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12821. **Gold Quartz.** Fosser Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12822. **Gold Quartz.** Milton Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12823. **Gold Quartz.** Bellevue Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12824. **Gold Quartz.** Hope Mine, Ophir District, Placer County, California. Dr. M Schnabel. January 20, 1892.

12825. **Gold Quartz.** Hamilton Flat Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12826. **Gold Quartz.** Quadrille Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12827. **Gold Quartz.** Morning Star Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12828. **Gold Quartz.** Lina Riveres Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12829. **Gold Quartz.** Rodgers Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12830. **Gold Quartz.** Monahan Mine, Ophir District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12831. **Gold Quartz.** Maynard Mine, Auburn District, Placer County, California. Dr. M. Schnabel. January 20, 1892.

12832. **Gold** in ferruginous quartz. Plymouth Rock Mine, Madison County, Montana. W. A. Means. January 25, 1892.

12833. **Garnet** (silicate of iron, aluminum, calcium, etc.) in Mica Schist, and in Indicolite. California City, Marin County, California. January 28, 1892.

12834. **Gypsum** (hydrous sulphate of calcium). Mojave Desert, twelve miles east of Mojave, Kern County, California. S. P. Maslin. January 29, 1892.

12835. **Graphite,** with quartz. Western Alaska. W. H. Pierson. February 5, 1892.

12836. **Auriferous Talcose Sediment,** probably resulting from the decomposition of serpentine, and containing free gold, magnetic iron, and sand. From a deposit in Lincoln Township, four miles from Goodyear's Bar, Sierra County, California. G. C. Higgins. February 6, 1892.

12837. **Granite,** of which the Capitol of Texas is built. A. G. Dunbar. February 15, 1892.

12838. **Quartz**—Opaline variety. Winters, Yolo County, California. B. Bertholet. February 15, 1892.

12839. **Walrath** (palmitinic acid, and cetyl ether). Probably from a dead or diseased whale. A large quantity of it was found on the beach at Point Arena, Mendocino County, California, and this specimen brought to the Bureau for determination, by A. Krelzer. February 15, 1892.

12840. **Gold Quartz.** Federal Loan Mine, Nevada City, Nevada County, California. From the Company. February 15, 1892.

12841. **Silver**—Native "wire" and "arborescent" silver on crystallized Cerussite. Custer Mine, Nine-mile Creek, Wallace, Idaho. George Garbutt. February 26, 1892.

12842. **Cerussite** (carbonate of lead)—Argentiferous, in fine crystals. Custer Mine, Nine-mile Creek, Wallace, Idaho. George Garbutt. February 26, 1892.

12843. **Gold Quartz.** Gilded Age Mine, West Point, Calaveras County, California. F. McMillan. February 26, 1892.

12844. **Silver Ore.** Very rich in "horn silver" (chloride of silver). Rescue Mine, Globe District, Arizona. J. M. Prather. February 26, 1892.

12845. **Silver Ore.** Chloride Mine, Baker County, Oregon. J. K. Romig. March 1, 1892.

12846. **Gold Quartz.** Gold Nugget Mine, West Point, Calaveras County, California. F. McMillan. March 1, 1892.

12847. **Kaolin,** of excellent quality, nearly all alumina. From the vicinity of the sulphur beds, on the property leased by the Sunset Company, forty miles west from Bakersfield, Kern County, California. March 1, 1892.

12848. **Sulphur**—Crude. From the property leased by the Sunset Company, forty miles west from Bakersfield, Kern County, California. March 1, 1892.

12849. **Auriferous Pyrite.** Golden Treasure Mine, Grass Valley, Nevada County, California. Charles E. Derby. March 1, 1892.

12850. **Gold Quartz** and **Jasper,** showing free gold. Empire Mine, Grass Valley, Nevada County, California. Charles E. Derby. March 1, 1892.

12851. **Iron Ore**—Magnetite. Magnetic Iron Ore Mine, Kings Creek District, Fresno County, California. C. J. Beck. March 1, 1892.
Ledge 300 feet wide.

12852. **Iron Ore**—Magnetite. Slaty Iron Mine, Kings Creek District, Fresno County, California. C. J. Beck. March 1, 1892.

12853. **Iron Ore**—Magnetite. Sparkling Iron Mine, Kings Creek District, Fresno County, California. C. J. Beck. March 1, 1892.
Ledge 325 feet wide; altitude, 10,700 feet.

12854. **Magnetite**—Loadstone, or natural magnet (protosesquioxide of iron). Sparkling Iron Mine, Kings Creek District, Fresno County, California. C. J. Beck. March 1, 1892.

12855. **Sphalerite** (sulphide of zinc), with Bismuthinite and Galena. Comstock Mine, Kings Creek District, Fresno County, California. C. J. Beck. March 1, 1892.

12856. **Bismuthinite** (sulphide of bismuth). Second Sierra Mine, Kings Creek District, Fresno County, California. C. J. Beck. March 1, 1892.

12857. **Bismuthinite** (sulphide of bismuth), with Argentiferous Galena. Lot 1 Mine, Kings Creek District, Fresno County, California. C. J. Beck. March 1, 1892.

12858. **Silver Ore** (argentiferous galena), with a little Bismuth. Lot 3 Mine, Kings Creek District, Fresno County, California. C. J. Beck. March 1, 1892.

12859. **Copper Ore**—Chalcopyrite. Bolinas, Marin County, California. J. C. Sebrean. March 3, 1892.

12860. **Silver Ore**—Cerargyrite. Ventura Mine, 20 miles south of the United States boundary line, Sonora, Mexico. Henry R. Ewalt. March 4, 1892.

12861. **Coal**—Lignite. Eight miles west by north of San Fernando, Los Angeles County, California. C. V. Greenameyer. March 4, 1892.

12862. **Auriferous Pyrite.** Black Wonder Mine, West Point, Calaveras County, California. F. McMillan. March 4, 1892.

12863. **Tellina hoffmanniana.** Gabb. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 15, 1892.

12864. **Mytilus quadratus.** Gabb. Cretaceous fossil. California Coal Mine, Coalinga, Fresno County, California. March 15, 1892.

12865. **Aucella piochii.** Gabb. Cretaceous fossil. California Coal Mine, Coalinga, Fresno County, California. March 15, 1892.

12866. **Galerus excentricus** (casts). Gabb. Cretaceous fossil. California Coal Mine, Coalinga, Fresno County, California. March 15, 1892.

12867. **Solarium.** Nov. Sp.? Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 15, 1892.

12868. **Mactra ashburneri.** Gabb. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 15, 1892.

12869. **Ostrea idriaensis.** Gabb. Cretaceous fossil. California and San Joaquin Coal Mines, Coalinga, Fresno County, California. March 15, 1892.

12870. **Perna excavata.** White. Cretaceous fossil. California Coal Mine, Coalinga, Fresno County, California. March 15, 1892.

12871. **Liropecten crassicardo.** Con. Miocene fossil. East slope of Coast Range, near oil wells at Coalinga, Fresno County, California. March 15, 1892.

12872. **Tamiosoma gregaria.** Con. Miocene fossil. Specimens showing upper and lower valves, internal structure, etc.; those with upper valves being the first examples found in California. East slope of Coast Range, near oil wells at Coalinga, Fresno County, California. March 15, 1892.

12873. **Coal**—Anthracite. Banff, British Columbia. Claus Spreckels. March 15, 1892.

12874. **Silver Ore.** Very rich ore from the San Gabriel District, Los Angeles County, California. W. L. Turner. March 18, 1892.

12875. **Sioux Indian Shirt.** Worn at the so-called "ghost dances" held at Pine Ridge, South Dakota, just previous to the breaking out of the last Indian war in 1890–91. Wm. Henry. March 18, 1892.

12876. **Batissia dubia.** White. Cretaceous fossil. California Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12877. **Gyrodes dowelli.** White. Cretaceous fossil. California Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12878. **Clisocolus dubius.** Gabb. Cretaceous fossil. California Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12879. **Venus varians.** Gabb. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12880. **Turritella uvasana.** Con. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12881. **Cardium linteum.** Con. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12882. **Axinæa veatchii.** Gabb. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12883. **Tapes conrádiana.** Gabb. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12884. **Cardium breweri** (small). Gabb. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12885. **Mactra longa.** Gabb. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12886. **Tapes cretacea.** Gabb. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12887. **Tellina ashburneri.** Gabb. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12888. **Modiola cylindrica.** Gabb. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12889. **Tellina ovoides.** Gabb. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12890. **Rimella macaleata.** White. Cretaceous fossil. San Joaquin Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12891. **Neverita triangulata.** Gabb. Cretaceous fossil. California Coal Mine, Coalinga, Fresno County, California. March 19, 1892.

12892. **Turritella chicoensis.** Gabb. Cretaceous fossil. Marysville Buttes, Sutter County, California. March 19, 1892.

12893. **Surcula præattenuata.** Gabb. Cretaceous fossil. Marysville Buttes, Sutter County, California. March 19, 1892.

12894. **Lunatia nuciformis.** Gabb. Cretaceous fossil. Marysville Buttes, Sutter County, California. March 19, 1892.

12895. **Trochosmilia petrosa.** Gabb. Cretaceous fossil. Marysville Buttes, Sutter County, California. March 19, 1892.

12896. **Alabandite** (sulphide of manganese). Tombstone, Arizona. March 19, 1892.

12897. **Jeffersonite,** a variety of Pyroxene. Stirling, New Jersey. March 19, 1892.

12898. **Ægirite** (silicate of iron, calcium, and sodium), in Microline. Magnet Cove, Arkansas. March 19, 1892.

12899. **Troostite** (silicate of zinc). Franklin, New Jersey. March 19, 1892.

12900. **Lepidomelane** (silicate of aluminum, iron, and potassium). Litchfield, Maine. March 19, 1892.

12901. **Menaccanite** (oxide of titanium and iron). Westerley, Rhode Island. March 19, 1892.

12902. **Cinnabar** (sulphide of mercury). Avala, Piedmont, Italy. March 19, 1892.

12903. **Hydromagnesite** (hydrous carbonate of magnesium). Hoboken, New Jersey. March 19, 1892.

12904. **Pyroxene** (silicate of iron, calcium, and magnesium). Sing Sing, New York. March 19, 1892.

12905. **Gastaldite** (silicate of aluminum and iron). Aosta, Turin, Italy. March 19, 1892.

12906. **Edenite**, a variety of Amphibole. Edenville, New York. March 19, 1892.

12907. **Silver Ore**—Partzite. Very rich ore from the Cottonwood Mines, Roop County, Nevada. Wm. T. Cressler. March 22, 1892.

12908. **Stone Hatchet**—Aboriginal. Tingha, Inverell District, New South Wales. James Rooney. March 24, 1892.

12909. **Cassiterite** in Feldspar (from a lode). Tingha, Inverell District, New South Wales. James Rooney. March 24, 1892.

12910. **Cassiterite** in the hanging wall rock of the lode. Tingha, Inverell District, New South Wales. James Rooney. March 24, 1892.

12911. **Cassiterite** in the "cap rock" or croppings of the lode. Tingha, Inverell District, New South Wales. James Rooney. March 24, 1892.

12912. **Cassiterite** — Alluvial ("Stream Tin"). Tingha, Inverell District, New South Wales. James Rooney. March 24, 1892.

12913. **Building Stone**—Sandstone. From quarry at Lake Chabot, San Leandro, Alameda County, California. F. Bacheller. March 26, 1892.

12914. **Pyroxene** (silicate of iron, calcium, and magnesium). Big Cañon, Lake County, California. L. Evans. March 28, 1892.

12915. **Quicksilver Ore**—Cinnabar. New England Mine, Butte District, Yolo County, California. L. Evans. March 28, 1892.

12916. **Quicksilver Ore**—Cinnabar. From a claim adjoining the New England Mine, Butte District, Yolo County, California. L. Evans. March 28, 1892.

12917. **Cryptomya californica.** Con. Miocene fossil. San Emidio Ranch, Kern County, California. March 29, 1892.

12918. **Nassa californica.** Con. Miocene fossil. San Emidio Ranch and Barker Ranch, Kern County, California. March 29, 1892.

12919. **Macoma secta.** Con. Miocene fossil. San Emidio Ranch, Kern County, California. March 29, 1892.

12920. **Crassatella collina.** Con. Miocene fossil. San Emidio Ranch, Kern County, California. March 29, 1892.

12921. **Glycimeris generosa.** Gld. Miocene fossil. San Emidio Ranch, Kern County, California. March 29, 1892.

12922. **Solen rosaceus.** Carp. Miocene fossil. San Emidio Ranch, and Barker Ranch, Kern County, California. March 29, 1892.

12923. **Pinna alamedensis.** Yates. Miocene fossil. Barker Ranch, Kern River, Kern County, California. March 29, 1892.

12924. **Ostrea heermanni.** Con. Miocene fossil. Pyramid Mountain, Greenhorn Mountains, Kern County, California. March 29, 1892.

12925. **Liropecten crassicardo.** Con. Miocene fossil. Pyramid Mountain, Greenhorn Mountains, Kern County, California. March 29, 1892.

12926. **Dosinia mathewsonii.** Gabb. Miocene fossil. San Emidio Ranch, and Pyramid Mountain, Greenhorn Mountains, Kern County, California. March 29, 1892.

12927. **Annelid Tubes.** Miocene fossil. Pyramid Mountain, Greenhorn Mountains, Kern County, California. March 29, 1892.

12928. **Crepidula grandis.** Mdd. Miocene fossil. Pyramid Mountain, Greenhorn Mountains, Kern County, California. March 29, 1892.

12929. **Venus pertenuis.** Gabb. Miocene fossil. Pyramid Mountain, Greenhorn Mountains, Kern County, California. March 29, 1892.

12930. **Neverita recluziana.** Petit. Miocene fossil. San Emidio Ranch, and Pyramid Mountain, Greenhorn Mountains, Kern County, California. March 29, 1892.

12931. **Axinæa barbarensis.** Miocene fossil. Pyramid Mountain, Greenhorn Mountains, Kern County, California. March 29, 1892.

12932. **Neverita callosa.** Gabb. Miocene fossil. Barker Ranch, Kern River, Kern County, California. March 29, 1892.

12933. **Meretrix tularana.** Con. Miocene fossil. Barker Ranch, Kern River, Kern County, California. March 29, 1892.

12934. **Conus californicus.** Hinds. Miocene fossil. Barker Ranch, Kern River, Kern County, California. March 29, 1892.

12935. **Pecten discus.** Con. Miocene fossil. Barker Ranch, Kern River, Kern County, California. March 29, 1892.

12936. **Tapes staleyi.** Gabb. Miocene fossil. San Emidio Ranch, and Barker Ranch, Kern County, California. March 29, 1892.

12937. **Yoldia impressa.** Con. Miocene fossil. Barker Ranch, Kern River, Kern County, California. March 29, 1892.

12938. **Lunatia lewisii.** Gould. Miocene fossil. Barker Ranch, Kern River, Kern County, California. March 29, 1892.

12939. **Tellina ocoyana.** Con. Miocene fossil. Barker Ranch, Kern River, Kern County, California. March 29, 1892.

12940. **Arca microdonta.** Con. Miocene fossil. San Emidio Ranch, and Barker Ranch, Kern County, California. March 29, 1892.

12941. **Oxyrhina plana** (teeth). Agass. Barker Ranch, Kern River, Kern County, California. March 29, 1892.

12942. **Celestite** (sulphate of strontium) on sulphur. Italy. F. Bacheller. April 4, 1892.

12943. **Aragonite** (carbonate of calcium), deposited inside a drain-box in the Overman Mine, Gold Hill, Nevada, with a slab of the mineral showing a miter joint, which is remarkable, as the box is made with a common square joint. Presented by Albert Lackey, Superintendent. April 4, 1892.

12944. **Pisolite** (concretionary carbonate of calcium). Lassen County, California. L. L. Frost. April 6, 1892.

12945. **Marble**—Variety called in Italy "Cipollino," with regular markings colored by graphite. From a new quarry in Fairchild's Cañon, San Bernardino County, California. A. Higbie. April 6, 1892.

12946. **Limonite** (hydrate of iron)—Iridescent. Copper City, Shasta County, California. F. McMillan. April 9, 1892.

12947. **Agate** (quartz). Yellowstone Park, Montana. April 9, 1892.

12948. **Indian Stone Implement,** probably intended for use as a weapon. Scotia, Humboldt County, California. April 9, 1892.

12949. **Silver Ores.** Specimens from main body of ledge, and from hanging and foot walls of the Bunker Hill and Sullivan group of mines, Wardner, Idaho. From the Company. April 13, 1892.

12950. **Amethyst** (quartz). Schemnitz, Hungary. April 14, 1892.

12951. **Anhydrite** (sulphate of calcium). Bleiberg, Carinthia. April 14, 1892.

12952. **Auripigmentum** and **Realgar** (sulphide of arsenic). Moldawa, Hungary. April 14, 1892.

12953. **Chabazite** (hydrous silicate of aluminum, calcium, and potassium). Aussig, Bohemia. April 14, 1892.

12954. **Apophyllite** (hydrous silicate of calcium and potassium). Aussig, Bohemia. April 14, 1892.

12955. **Manganite** (hydrous oxide of manganese). Ilfeld, Hartz, Germany. April 14, 1892.

12956. **Columbite** (columbate of iron). Kreiss Raade, Norway. April 14, 1892.

12957. **Pycnite**, a variety of topaz. Zinnwald, Saxony. April 14, 1892.

12958. **Pucherite** (vanadate of bismuth), with Bismutite. Schneeberg, Saxony. April 14, 1892.

12959. **Dialogite** (carbonate of manganese), with Helvite. Kapnik, Hungary. April 14, 1892.

12960. **Laurionite** (oxychloride of lead). Laurium, Greece. April 14, 1892.

12961. **Hematite**, var. "Specular Iron." Island of Elba. April 14, 1892.

12962. **Mica**—Zinnwaldite. Zinnwald, Saxony. April 14, 1892.

12963. **Amber**. Baltic shore of Eastern Prussia. April 14, 1892.

12964. **Asphaltum**. Dead Sea, Palestine. April 14, 1892.

12965. **Kraurite** (phosphate of iron). Voigtland, Germany. April 14, 1892.

12966. **Calcite** (carbonate of calcium). Bigrigg Mine, Cumberland, England. April 14, 1892.

12967. **Prase-opal** (quartz). Baumgarten, Silesia. April 14, 1892.

12968. **Xanthoconite** (sulph-arsenide of silver), with Ruby Silver. Freiberg, Saxony. April 14, 1892.

12969. **Agate** (quartz). Schlottwitz, Saxony. April 14, 1892.

12970. **Tetrahedrite** (sulph-antimonide of copper) on crystallized quartz. Kapnik, Hungary. April 14, 1892.

12971. **Argyrodite** (sulphide of silver). Freiberg, Saxony. April 14, 1892.

12972. **Acanthite** (sulphide of silver). Freiberg, Saxony. April 14, 1892.

12973. **Laumontite** (hydrous silicate of aluminum and calcium) and **Apophyllite**. Nagyag, Transylvania. April 14, 1892.

12974. **Pinguite** (hydrous silicate of iron). Zwickau, Saxony. April 14, 1892.

12975. **Barite** (sulphate of barium). Freiberg, Saxony. April 14, 1892.

12976. **Gummite** (hydrate of uranium). Schneeberg, Saxony. April 14, 1892.

12977. **Alabandite** (sulphide of manganese), with Rhodocrosite. Nagyag, Transylvania. April 14, 1892.

12978. **Helvite** (silicate and sulphide of glucinum, manganese, and iron). Schwarzenberg, Saxony. April 14, 1892.

12979. **Diaspore** (hydrate of aluminum). Schemnitz, Hungary. April 14, 1892.

12980. **Dillnite** (diaspore and clay). Schemnitz, Hungary. April 14, 1892.

12981. **Konarite** (silicate of nickel). Plauen, Voigtland, Germany. April 14, 1892.

12982. **Rottisite** (silicate of nickel). Plauen, Voigtland, Germany. April 14, 1892.

12983. **Vivianite** (earthy phosphate of iron). Berkeley, Alameda County, California. J. Goucher. April 14, 1892.

12984. **Chrysoberyl** (oxide of aluminum and glucinum). Marschendorp, Moravia. April 14, 1892.

12985. **Pyrargyrite** (sulph-antimonide of silver) in rich ore from the Nevada Queen Mine, Tuscarora, Nevada. J. W. Powell. April 19, 1892.

12986. **Calcite,** var. "Dogtooth Spar," in fossil shells. Soquel, Santa Cruz County, California. P. D. Frost. April 19, 1892.

12987. **Gypsum** (hydrous sulphate of calcium). Santa Rosa, Department of Leon, Nicaragua. J. Crawford. April 19, 1892.

12988. **Silver Ore** (argentiferous galena). Cerro San Antonio, Encino, Department of Segovia, Nicaragua. J. Crawford. April 19, 1892.

12989. **Silver Ore.** Rich ore from Depilto, Department of Segovia, Nicaragua. J. Crawford. April 19, 1892.

12990. **Gold Quartz.** Twenty-eight specimens from as many different claims in the auriferous region comprising portions of the Departments of Leon, Segovia, and Chinandega, Nicaragua. J. Crawford. April 21, 1892.

12991. **Clay.** Red ferruginous clay from Cerro Ocotal, Department of Leon, Nicaragua. J. Crawford. April 21, 1892.

12992. **Clay.** Kaolin of fine quality. Cerro Veridos, Sauce, Department of Leon, Nicaragua. J. Crawford. April 21, 1892.

12993. **Graphite.** Ocotal, Nicaragua. J. Crawford. April 21, 1892.

12994. **Silver Ore**, with carbonates of copper. Silver King Mine, Barrier Range, New South Wales, Australia. April 22, 1892.

12995. **Silver Ore**—Chloride. Broken Hill, New South Wales, Australia. April 22, 1892.

12996. **Silver Ore**, with Azurite. South Broken Hill Mine, Barrier Range, New South Wales, Australia. April 22, 1892.

12997. **Boomerang.** A genuine specimen of this unique weapon as made by the Australian aborigines. Technological Museum, Sydney. April 22, 1892.

12998. **Drum,** of wood, with head of snake skin. Made and used by the natives of Australia. Technological Museum, Sydney. April 22, 1892.

12999. **Platypus.** Ornithorhynchus anatinus. Technological Museum, Sydney. April 22, 1892.

This animal, peculiar to Australia, and now very rare, would appear to be the connecting link between the bird and the quadruped, possessing a body and tail resembling the beaver, with the bill of a duck, webbed feet, and laying eggs like a bird.

13000. **Wood Specimens.** One hundred and thirty-three samples of the principal woods of Japan, placed in order as numbered. From the Bureau of Forestry, Tokio, Japan. April 22, 1892.

1. Abura-giri—Aleuritis cordata.
2. Adsusa—Catalpa kæmpferi.
3. Aka-gashi—Quercus acuta.

4. Aka-matsu—Pinus densiflora.
5. Akamegashiwa—Rottlera japonica.
6. Araragi—Taxus cuspidata.
7. Asada—Osirya virginia.
8. Asagara—Pterostyrax hispidum.
9. Asebi—Andromeda japonica.
10. Asunaro—Thuya dolabrata.
11. Baramomi—Picea polita.
12. Biwa—Photinia japonica.
13. Buna—Fagus sylvatica.
14. Chanchin—Cedrela chinensis.
15. Chosen-matsu—Pinus koraiensis.
16. Dake-kaba—Betula bhojpathra.
17. Doroyanagi—Populus suaveolens..
18. Dzumi—Pyrus toringo.
19. Egonoki—Styrax japonica.
20. Enoki—Celtis sinensis.
21. Fuji-matsu—Larix leptolepis.
22. Fusa-sakura—Euptelea polyandra.
23. Giri—Sterculia plantanifolia.
24. Gonzetsu—Acanthopanax sciadophylloides.
25. Hadankyo—Prunus instica.
26. Haji—Rhus succedanea.
27. Hamabo—Paritium tillaceum.
28. Hannoki—Alnus maritima.
29. Harigiri—Acanthopanax ricinifolium.
30. Hiaku jitsuko—Lagerstrœmia indica.
31. Himeko-matsu—Pinus parvifolia.
32. Himemuro—Thuya squarrosa.
33. Hinoki—Thuya obtusa.
34. Hira-giri—Olea aquifolium.
35. Honoki—Magnolia hypoleuca.
36. Ibuki—Juniperus chinensis.
37. I-chii-gashi—Quercus gilva.
38. I-chijiku—Ficus carica.
39. I-cho—Ginko biloba.
40. Ii-giri—Idesia polycarpa.
41. Imbuna—Fagus sieboldii.
42. Inukaya—Cephalotaxus drupacea.
43. Inumaki—Podocarpus macrophylla.
44. Inumayumi—Euonymus europæus.
45. Inusoro—Marlea begonifolia.
46. Inuyenju—Cladastris amurensis.
47. Isonoki—Rhamnus crenatus.
48. Itayakaede—Acer pictum.
49. Kachinoki—Bronsonetia kasinoki.

50. Kaede—Acer palmatum.
51. Kaji-kaede—Acer purpurascens.
52. Kakinoki—Diospyros kaki.
53. Kakuremino—Dendropanax japonicum.
54. Kanashide—Calpinus japonica.
55. Kanboku—Viburnum opulus.
56. Kankonoki—Glochodon obovatum.
57. Karasunosansho—Zanthoxyllum ailanthoides.
58. Karin—Pyrus chinensis.
59. Katsura—Cercidiphyllum japonicum.
60. Kaya—Torreya nucifera.
61. Keaki—Zelkowa keaki.
62. Kenpo-nashi—Hovenia dulcis.
63. Kiri—Paulownia imperialis.
64. Kiwada—Rhododendron amurense.
65. Kobushi—Magnolia kobus.
66. Koganoki—Actinodaphne lancifolia.
67. Konara—Quercus glandulifera.
68. Koyamaki—Sciadopytis verticillata.
69. Koyosan—Cunninghamia sinensis.
70. Kumanori—Ilex macropoda.
71. Kunugi—Quercus serrata.
72. Kuri—Castanea vulgaris.
73. Kuro-matsu—Pinus thunbergii.
74. Kurumi—Juglans sieboldii.
75. Kusunoki—Cinnamomum camphora.
76. Kuwanoki—Morus alba.
77. Liobu—Clesthra barbinervis.
78. Maruba-hannoki—Alnus incana.
79. Marubayanagi—Salix purpurea.
80. Meurinoki—Acer destylum.
81. Midsumesakura—Prunus buergeriana.
82. Minebari—Betula corylifolius.
83. Mokoku—Ternstrœmia japonica.
84. Momi—Abies firma.
85. Mukunoki—Aphananthe aspera.
86. Mukuroji—Sapindus mukurosi.
87. Nagi—Podocarpus nageia.
88. Nanakamado—Pyrus sambucifolia.
89. Nashi—Pyrus ussuriensis.
90. Natsugumi—Clægens pungens.
91. Natsume—Sizyphus vulgaris.
92. Nedzuko—Thuya gigantea, Nuttall's var. japonica.
93. Nemunoki—Albrizzia julibrizin.
94. Nigaki—Picrosnia ailanthoides.

95. Nikkei—Cinnamomum lowreirii.
96. Nurude—Rhus semi-alata.
97. Ogatama—Machilia compressa.
98. Onara—Quercus crispula.
99. Ringan—Euphorbia longana.
100. Saikachi—Gleditschia japonica.
101. Sakaki—Cleyera japonica.
102. Sakura—Prunus pseudocerasus.
103. Saruta—Stuartia monadelpha.
104. Sawara—Thuya pisifera.
105. Sawakurumi—Pterocarya rhoifolia.
106. Sendan—Melia azedarach.
107. Shakunagi—Rhododendron metternichi.
108. Shidez-akura—Amelanchier asiatica.
109. Shidareyanagi—Alnus incana.
110. Shii-noki—Quercus cuspidata.
111. Shikimi—Illicium anisantum.
112. Shinanoki—Tilia cordata.
113. Shioji—Fraxinus bungeana.
114. Shirakashi—Quercus glauca.
115. Shirabe—Abies veitchii.
116. Shirakaba—Betula alba.
117. Shobunoki—Lindera glauca.
118. Soro—Alnus laxifolia.
119. Sugi—Cryptomeria japonica.
120. Tamakusu—Machilus thunbergii.
121. Tarayo—Ilex latifolia.
122. Tochinoki—Æsculus turbinata.
123. Toneriko—Fraxinus pubinervis.
124. Tsubaki—Camellia japonica.
125. Tsuga—Tsuga sieboldii.
126. Uamidsuzakura—Prunus siori.
127. Urinoki—Acer rubinervis.
128. Urushi—Rhus vernicifera.
129. Yabunikkei—Cinnamomum pedunculatum.
130. Yamaboshi—Cornus kousa.
131. Yamashiba—Acer carpinifolium.
132. Yuzuriha—Daphnophyllum macropodium.
133. Zakuro—Punica granatum.

13001. **Feldspar**—Orthoclase, var. Cassinite. Delaware County, Pennsylvania. J. Z. Davis. April 23, 1892.

13002. **Arsenic**—Native. St. Andreasberg, Hartz, Germany. J. Z. Davis. April 23, 1892.

13003. **Lava.** Fuji-yama, Japan. J. Z. Davis. April 23, 1892.

13004. **Jadeite** (silicate of aluminum, calcium, and sodium). Two specimens, polished. New Zealand. J. Z. Davis. April 23, 1892.

13005. **Copper Ore.** Chalcopyrite. Bimmington Mine, Yavapai County, Arizona. S. C. Collins. April 23, 1892.

13006. **Aragonite** (carbonate of calcium). Sulphur Creek, Colusa County, California. Frank Green. April 26, 1892.

13007. **Copper Ore**—Chalcopyrite, with Antimony, Silver, and a little Gold. Castle Rock Mine, Cœur D'Alene District, Idaho. O. R. Young. April 26, 1892.

13008. **Silver Ore**—Antimonial. Mineral Point Mine, Cœur D'Alene District. Idaho. O. R. Young. April 26, 1892.

13009. **Silver Ore,** with Copper, Antimony, Lead, and a little Gold. Mineral Point Mine, Cœur D'Alene District, Idaho. O. R. Young. April 26, 1892.

13010. **Silver Ore** (argentiferous galena), with Carbonate of Lead and a little Gold. Killbuck Mine, Cœur D'Alene District, Idaho. O. R. Young. April 26, 1892.

13011. **Rubellite**—Red Tourmaline. Mount Mica, Maine. J. Z. Davis. April 28, 1892.

13012. **Corundum,** var. Ruby. Jackson County, North Carolina. J. Z. Davis. April 28, 1892.

13013. **Struvite** (hydrous phosphate of magnesium and ammonia). Hamburg, Germany. J. Z. Davis. April 28, 1892.

13014. **Gold Quartz.** Florence and Lillie Mine of the Alameda Mining Company, Coquette District, Plumas County, California. J. A. Hall. April 29, 1892.

13015. **Gold Quartz.** Crisp Camp, Mariposa County, California. D. Lawson. April 29, 1892.

13016. **Gold Quartz.** Gold King Mine, Cripple Creek, El Paso County, Colorado. O. P. Powers. April 30, 1892.

13017. **Gold Quartz.** Game Cock Mine, Cripple Creek, El Paso County, Colorado. O. P. Powers. April 30, 1892.

13018. **Gold Quartz.** Blue Bell Mine, Cripple Creek, El Paso County, Colorado. O. P. Powers. April 30, 1892.

13019. **Gold Quartz.** Iron King Mine, Cripple Creek, El Paso County, Colorado. O. P. Powers. April 30, 1892.

13020. **Gold Quartz.** Anaconda Mine, Cripple Creek, El Paso County, Colorado. O. P. Powers. April 30, 1892.

13021. **Gold Quartz.** Buena Vista Mine, Cripple Creek, El Paso County, Colorado. O. P. Powers. April 30, 1892.

13022. **Gold Quartz.** U. P. Mine, Cripple Creek, El Paso County, Colorado. O. P. Powers. April 30, 1892.

13023. **Gold Quartz.** Goldstone Mine, Cripple Creek, El Paso County, Colorado. O. P. Powers. April 30, 1892.

13024. **Gold Quartz.** Great View Mine, Cripple Creek, El Paso County, Colorado. O. P. Powers. April 30, 1892.

13025. **Gold Quartz.** Superior Mine, Cripple Creek, El Paso County, Colorado. O. P. Powers. April 30, 1892.

13026. **Gold Quartz.** Lincoln Mine, Cripple Creek, El Paso County, Colorado. O. P. Powers. April 30, 1892.

13027. **Gold Quartz.** National Belle Mine, Cripple Creek, El Paso County, Colorado. O., P. Powers. April 30, 1892.

13028. **Chrysotile** (a variety of serpentine, hydrous silicate of magnesium) of very fine quality, for use in the arts. From W. H. Ashurst's claim, Grand Cañon of the Colorado, near Peach Springs, Arizona. Mrs. M. H. Murdock. May 2, 1892.

13029. **Barite** (sulphate of barium), crystallized. Copper City, Shasta County, California. F. McMillan. May 2, 1892.

13030. **Melanterite** (sulphate of iron). Copper City, Shasta County, California. F. McMillan. May 2, 1892.

13031. **Barite** (sulphate of barium). Azusa, Los Angeles County, California. W. H. Adams. May 2, 1892.

13032. **Magnesite** (carbonate of magnesia), with a little lime, alumina, and a trace of silica. Needles. San Bernardino County, California. George Maxwell. May 2, 1892.

13033. **Gypsum**—Selenite (hydrous sulphate of calcium). Desert, San Bernardino County, California. John Stevenson. May 2, 1892.

13034. **Limonite** (hydrate of iron). Iridescent stalactitic variety. Iron Mountain, Shasta County, California. F. McMillan. May 10, 1892.

13035. **Leucite** (silicate of aluminum and potassium). Vesuvius, Italy. J. Z. Davis. May 10, 1892.

13036. **Wood Specimen.** Quaking Aspen. Populus tremuloides. Cedarville, Modoc County, California. B. F. Scammon. May 12, 1892.

13037. **Gold Quartz,** showing free gold. Van Wert Mine, Julian District, San Diego County, California. From the Company. May 13, 1892.

13038. **Gold Quartz.** Helvetia Mine, Julian District, San Diego County, California. F. Bacheller. May 13, 1892.

13039. **Wulfenite** (molybdate of lead). Mammoth Mine, Pinal County, Arizona. C. L. Canfield. May 13, 1892.

13040. **Aporrhais falciformis** (?). Gabb. Cretaceous fossil. Santa Ana Mountains, Orange County, California. May 13, 1892.

13041. **Neæra** (?) **dolabræformis** (?). Gabb. Cretaceous fossil. Santa Ana Mountains, Orange County, California. May 13, 1892.

13042. **Chrysodomus dirus** (?). Reeve. Miocene fossil. Sespe, Ventura County, California. May 13, 1892.

13043. **Crassatella tuscana.** Gabb. Cretaceous fossil. Santa Ana Mountains, Orange County, California. May 13, 1892.

13044. **Gari texta** (?). Gabb. Cretaceous fossil. Santa Ana Mountains, Orange County, California. May 13, 1892.

13045. **Arca gravida** (?). Gabb. Cretaceous fossil. Santa Ana Mountains, Orange County, California. May 13, 1892.

13046. **Tellina decurtata** (?). Gabb. Cretaceous fossil. Santa Ana Mountains, Orange County, California. May 13, 1892.

13047. **Crenella,** Nov. Sp. (?). Cretaceous fossil. Santa Ana Mountains, Orange County, California. May 13, 1892.

13048. **Conus brunneus.** Wood. Miocene fossil. Simi, Ventura County, California. May 13, 1892.

13049. **Asaphis multicostata.** Gabb. Cretaceous fossil. Santa Ana Mountains, Orange County, California. May 13, 1892.

13050. **Fusus tumidus (?).** Gabb. Cretaceous fossil. Santa Ana Mountains, Orange County, California. May 13, 1892.

13051. **Tellina mathewsonii.** Gabb. Cretaceous fossil. Santa Ana Mountains, Orange County, California. May 13, 1892.

13052. **Modiola multiradiata.** Gabb. Miocene fossil. Hammond's Ranch, four miles south from Livermoré, Alameda County, California. May 13, 1892.

13053. **Ptychophyllum** patellatum. Ed. & H. Yass, New South Wales. May 13, 1892.

13054. **Manganese Ore.** Pyrolusite. Crescent City, Del Norte County, California. L. F. Cooper. May 25, 1892.

13055. **Aragonite** (carbonate of calcium). Eel River, Lake County, California. E. Wilson. May 25, 1892.

13056. **Chromite,** in Octahedral Crystals. Australia. May 25, 1892.

13057. **Serpentine**—fibrous variety, with Calcite. Lucknow, Orange, New South Wales. May 25, 1892.

13058. **Auriferous Vein Matter.** Pambula, New South Wales. May 25, 1892.

13059. **Copper**—Native, with native Silver. Broken Hill, New South Wales. May 25, 1892.

13060. **Fossils**—Carboniferous. Wollongong. New South Wales. May 25. 1892.

13061. **Favosites** Sp. (?). Fossil from Yass, New South Wales. May 25, 1892.

13062. **Fossil Coral** in Limestone. Wellington Caves, New South Wales. May 25, 1892.

13063. **Bone Breccia.** Wellington Caves, New South Wales. May 25, 1892.

13064. **Encrinite Stems** on Limestone. Fossils from Wellington Caves, New South Wales. May 27, 1892.

13065. **Graptolites.** Fossils from Derwent Gully, Bendigo, Victoria, Australia. Phyllograptus folium, var. typus (Hall), and Didymograpus extensus (Hall). May 27, 1892.

13066. **Heliolites.** Tabulate Fossil Coral. Yass, New South Wales. May 27, 1892.

13067. **Aragonite** (carbonate of calcium), Crystals in Basalt. Carcoar, New South Wales. May 27, 1892.

13068. **Molybdenite** (sulphide of molybdenum), with Danaite and Erythrite. Carcoar, New South Wales. May 27, 1892.

13069. **Cimolite** (silicate of aluminum). Wyrallah, Richmond River, New South Wales. May 27, 1892.

13070. **Pyromorphite** (phosphate and chloride of lead), with native Silver and Copper. Broken Hill, New South Wales. May 27, 1892.

13071. **Porphyry.** Diabase Porphyry. Blayney, New South Wales. May 27, 1892.

13072. **Granite.** Coura, New South Wales. May 27, 1892.

This is a true granite, containing no hornblende; the black specks are black mica.

13073. **Gold Quartz.** Mount McDonald, New South Wales. May 27, 1892.

13074. **Gold Quartz.** Kohinoor Mine, Parkes, New South Wales. May 27, 1892.

13075. **Silver Ore** (argentiferous galena). Silver King Mine, Barrier Range, New South Wales. May 27, 1892.

13076. **Copper Ore**—Cuprite and Malachite. Copperopolis, Calaveras County, California. June 2, 1892.

13077. **Copper Matte.** From the furnace at Copperopolis, Calaveras County, California. June 2, 1892.

13078. **Gold Quartz.** Shows the effect of a split, and a sliding motion in the center of the vein, although no faulting has occurred. Keltz Mine, Soulsbyville, Tuolumne County, California. June 2, 1892.

13079. **Fossil Tooth.** Mastodon. Gold Springs, near Columbia, Tuolumne County, California. June 2, 1892.

13080. **Gold Quartz,** showing free Gold. Oro Grande Mine, Trinity County, California. Strode & Bauder. June 2, 1892.

13081. **Quartz Crystal,** with included Chlorite. Golden Gate Mine, Tuolumne County, California. June 2, 1892.

13082. **Tin**—Native. Found in cleaning up the sluices at the White Lead Gravel Claim, Columbia, Tuolumne County, California. M. C. Duchow. June 2, 1892.

13083. **Paramorph after Marcasite** (pyrite). Abbot Mine, Lake County, California. J. A. Veatch. June 4, 1892.

A curious and interesting specimen, in which part of the sulphur of the original mineral seems to have been substituted by petroleum, it having become quite soft without change of form or appearance. Heated in a glass tube it gives off oil and gas, then sulphur is driven off, leaving the iron as a residue. It also contains cinnabar, and a selenide of mercury, with iron pyrites, all on chalcedonic quartz.

13084. **Indian Spear-head and Arrow-point of Obsidian.** Groveland, Tuolumne County, California. George E. Sprague. June 6, 1892.

13085. **Silver**—Native, on rich ore from the Broken Hill Mines, Barrier Range, New South Wales. W. H. Patton, Jr. June 6, 1892.

13086. **Ochre**, of good quality. Eureka Mine, Valley Springs, Calaveras County, California. Vulcanized Fiber Company. June 6, 1892.

This deposit is now worked on an extensive scale.

13087. **Indian Stone Implement** of unusually fine finish, made from hard Syenite. West Butte, Sutter County, California. G. W. Santee. June 7, 1892.

13088. **Mytilus mathewsonii.** Gabb. Pliocene fossil. Humboldt County, California. O. Powers. June 11, 1892.

13089. **Turritella uvasana.** Con. Cretaceous (B) fossil. Marysville Buttes, Sutter County, California. June 11, 1892.

13090. **Mysia polita.** Gabb. Cretaceous (B) fossil. Marysville Buttes, Sutter County, California. June 11, 1892.

13091. **Nassa cretacea.** Gabb. Cretaceous (B) fossil. Marysville Buttes, Sutter County, California. June 11, 1892.

13092. **Ostrea idriaensis.** Gabb. Cretaceous (B) fossil. Marysville Buttes, Sutter County, California. June 11, 1892.

13093. **Leda gabbi.** Con. Cretaceous (B) fossil. Marysville Buttes, Sutter County, California. June 11, 1892.

13094. **Olivella mathewsonii.** Gabb. Cretaceous (B) fossil. Marysville Buttes, Sutter County, California. June 11, 1892.

13095. **Nucula solitaria** (?). Gabb. Cretaceous (B) fossil. Marysville Buttes, Sutter County, California. June 11, 1892.

13096. **Lunatia horni.** Gabb. Cretaceous (B) fossil. Marysville Buttes, Sutter County, California. June 11, 1892.

13097. **Niso polita.** Gabb. Cretaceous (B) fossil. Marysville Buttes, Sutter County, California. June 11, 1892.

13098. **Meretrix horni.** Gabb. Cretaceous (B) fossil. Marysville Buttes, Sutter County, California. June 11, 1892.

13099. **Galerus excentricus.** Gabb. Cretaceous (B) fossil. Marysville Buttes, Sutter County, California. June 11, 1892.

13100. **Cardita veneriformis** (?). Gabb. Cretaceous (B) fossil. Marysville Buttes, Sutter County, California. June 11, 1892.

13101. **Corbula parilis** (?) var. (?). Cretaceous (B) fossil. Marysville Buttes, Sutter County, California. June 11, 1892.

13102. **Limnophysa** Sp. (?). Quaternary fossil. From a depth of 200 feet in the Colemanite Mine, Calico, San Bernardino County, California. Mr. Perry. June 11, 1892.

13103. **Fossil Tooth of Horse.** Possibly Protohippus insignis. Leidy. Found at a depth of 1,000 feet, with calcareous and silicious concretions, in an artesian well at Pixley, Tulare County, California. Mrs. B. G. Lathrop. June 11, 1892.

13104. **Shells**—Ostrea californica and Macoma nasuta. Found in a stratum of blue sand, at a depth of 90 feet, in a well bored near the Mole on the waterfront of Oakland, Alameda County, California. Mr. Rogers. June 11, 1892.

13105. **Fossil Resin** resembling Gilsonite. No. 3 Coal Mine, Ione, Amador County, California. June 11, 1892.

13106. **Manganese Ore**—Pyrolusite and Psilomelane. Good quality. Baden, San Mateo County, California. W. E. Iber. June 11, 1892.

13107. **Gold Quartz,** high grade, and carrying some Silver. Igo, Shasta County, California. Frank Shirland. June 11, 1892.

13108. **Copper Matte,** showing a large amount of metallic copper in fine fibers. Union Mine furnace, Copperopolis, Calaveras County, California. S. C. Lake, Superintendent. June 11, 1892.

13109. **Serpentine,** resembling "Verd Antique," cut and polished. Forest Hill Divide, Placer County, California. G. F. Stone. June 11, 1892.

Said to be in large quantity, and well located for quarrying as an ornamental stone.

13110. **Gold Quartz,** with Chalcopyrite and Galena carrying a little Silver. Willard Mine, Magalia, Butte County, California. Joseph Glines. June 16, 1892.

13111. **Wall Rock**—Indurated Clay and Silica, with Pyrites. Foot wall of No. 13,110. June 16, 1892.

13112. **Coal**—Lignite. Bromley's Mine, Sulphur Creek, Colusa County, California. W. L. Bromley. June 16, 1892.

13113. **Quartzite.** From the auriferous belt, Colorado. J. Z. Davis. June 16, 1892.

13114. **Pebble,** inclosing a bubble of air or water, or both. Yaquina Bay, Oregon. Dr. Bushnell. June 16, 1892.

13115. **Silver Ore,** rich in Gold. Said to carry about 500 ounces of Silver, and an equal value of Gold per ton. Mina Grande, Sinaloa, Mexico. Oscar Newhouse. June 20, 1892.

13116. **Silver Ore.** Imperial Lode, Meteor Mine, Lava Beds District, San Bernardino County, California. June 23, 1892.

13117. **Silver Ore.** Caliente Creek, Kern County, California. Andre Sauser. June 23, 1892.

ASSAY S. M. B.

Gold	$12 40 per ton.
Silver	595 ounces.

13118. **Lead Ore**—Galena with Fluor Spar. Fleux Mine, Azusa, Los Angeles County, California. W. H. Adams, Jr. June 23, 1892.

13119. **Copper Ore**—Chalcopyrite. Tip Top Mine. Lava Beds District, San Bernardino County, California. June 23, 1892.

13120. **Gold Quartz,** rich in free Gold. Mary Ellen Mine, Groveland, Tuolumne County, California. A. B. Cruikshank. June 23, 1892.

13121. **Fibroferrite** (hydrous sulphate of iron), Jeannette Mine, Pima County, Arizona. David Neal. June 28, 1892.

13122. **Halite** (chloride of sodium). Daggett, San Bernardino County, California. W. P. Burt. June 28, 1892.

13123. **Asphaltum**—Crude, from a series of fissure veins from two to twenty feet in width. Santa Maria, Santa Barbara County, California. John R. Weeks. June 28, 1892.

13124. **Gold Quartz**, high grade. Union ledge of the Clinton Consolidated Mine, Wieland, Amador County, California. From the Company. June 28, 1892.

Assay sent with specimen: Gold, 30½ ounces; Silver, 10 1-10 ounces per ton.

13125. **Serpentine** (precious variety). Newburyport, Massachusetts. F. Bacheller. June 28, 1892.

13126. **Covellite** (sulphide of copper). Chile. F. Bacheller. June 29, 1892.

13127. **Cleavelandite**—A variety of Albite (soda feldspar), with Tourmaline of various colors. Chesterfield, Maine. F. Bacheller. June 29, 1892.

13128. **Tin Ore**—Cassiterite in white quartz. Harney City, Dakota. W. H. Storms. June 29, 1892.

13129. **Sussexite** (hydrous borate of manganese and magnesium). Ogdensburg, New Jersey. F. Bacheller. June 29, 1892.

13130. **Indian Arrow-heads of Obsidian.** Thirty specimens. Lassen County, California. T. B. Sanders. June 29, 1892.

13131. **Metaphyre Rock.** Two varieties, green and red. Composed of Chlorite with small crystals of Feldspar; the small nodules are composed of feldspar crystals in matrix of the same mineral. Saugus, Massachusetts. F. Bacheller. July 2, 1892.

13132. **Cuprite** (oxide of copper), crystallized. Colorado. W. G. Luckhardt. July 2, 1892.

13133. **Sulphur.** Island of Saba, West Indies. F. Bacheller. July 2, 1892.

13134. **Indian Stone Relic,** made of micaceous schist; use unknown. Found near Georgetown, El Dorado County, California. D. C. Stone. July 5, 1892.

13135. **Syenite.** Fragment from the Egyptian obelisk, "Cleopatra's Needle," at New York. R. R. L'Hommedien. July 7, 1892.

13136. **Copper Ore**—Very rich ore, 35 to 40 per cent Copper and 40 ounces of Silver per ton. Parrott Mine, Butte, Montana. B. Tibley, Superintendent. July 11, 1892.

13137. **Quicksilver Ore**—Rich Cinnabar. Great Western Mine, Lake County, California. Mrs. H. S. Durden. July 12, 1892.

13138. **Quartz Crystal,** in which four other so-called "phantom crystals" are distinctly visible. Tuolumne County, California. E. B. Preston. July 12, 1892.

13139. **Semi-Opal.** Columbia, Tuolumne County, California. July 12, 1892.

13140. **Dolomite,** var. "Nailhead Spar." San Andreas, Calaveras County, California. E. B. Preston. July 12, 1892.

13141. **Chromic Iron.** Near Southern, west of the Sacramento River, Shasta County, California. July 13, 1892.

13142. **Jasper**—Variegated. Nelson Creek, Monterey County, California. July 13, 1892.

13143. **Silicified Wood.** Stanton Gravel Claim, Mount Gregory, Georgetown Divide, El Dorado County, California. July 13, 1892.

13144. **Silicified Wood.** From a depth of 60 feet in a mine at Columbia, Tuolumne County, California. Mr. Street. July 13, 1892.

13145. **Helix faleonari.** Recent Shell. Richmond River, New South Wales. A. W. Crawford. July 13, 1892.

13146. **Silver**—Native. On ore from the Eugenia Mine, Copiapo, Chile. J. Z. Davis. July 14, 1892.

13147. **Silver**—Native. On ore from the Blanca Torre Mine, Copiapo, Chile. J. Z. Davis. July 14, 1892.

13148. **Silver Ore**. Very rich ore showing native Silver, Argentite, Pyrargyrite, etc. Progreso Mine, Paches, Mexico. J. Z. Davis. July 14, 1892.

13149. **Silver Ore,** showing native Silver on Galenite with Chalcopyrite. Rio Janeiro, Brazil. J. Z. Davis. July 14, 1892.

13150. **Ammonite.** Fossil from the El Boté Mine, Zacatecas, Mexico. J. Z. Davis. July 14, 1892.

13151. **Silver**—Native in Calcite. Santa Fe Mine, Rosio, Argentine Republic. J. Z. Davis. July 16, 1892.

13152. **Silver**—Native. Desengaño Mine, Chile. J. Z. Davis. July 16, 1892.

13153. **Gold** on ferruginous quartz. Chile. J. Z. Davis. July 16, 1892.

13154. **Gold**—Crystallized. Brazil. J. Z. Davis. July 16, 1892.

13155. **Gold.** From a placer in Terra del Fuego, Patagonia. J. Z. Davis. July 16, 1892.

13156. **Quartz Crystals,** with included Gold. Nigger Hill, Jamestown, Tuolumne County, California. G. A. Leland. July 16, 1892.

13157. **Argentite** (sulphide of silver). Chile. J. Z. Davis. July 16, 1892.

13158. **Argentite** (sulphide of silver) on Hematite. Zacatecas, Mexico. J. Z. Davis. July 16, 1892.

13159. **Anthracite Coal** (carbon) in Quartz. New York Mine, near Jackson, Amador County, California. July 19, 1892.

13160. **Shells**—Dentalium, formerly valued by the Indians for making "Wampum," and specimens of the operculum of the "Sea Snail" (Pachypoma gibberosum), used by the Indians of the northwest coast for ornamenting their canoes, gun stocks, etc. Port Townsend, Washington. Judge James G. Swan. July 19, 1892.

13161. **Pistol.** Old flint-lock dragoon pistol altered to a percussion lock. Carried in the Mexican War, and subsequently by a Confederate soldier in the war of the Rebellion. Capt. Gerard J. Brigaerts. July 21, 1892.

13162. **Quartz Crystals.** Calistoga, Napa County, California. B. Tucker. August 3, 1892.

13163. **Clay.** Occurs in large quantity. Santa Rosa, California. A. W. Dana. August 8, 1892.

13164. **Quicksilver Ore.** Rich Cinnabar from the 400-foot level of the Mirabel Mine, Lake County, California. Dr. Channing H. Cook. August 9, 1892.

13165. **Gold Quartz.** 100-foot level of the Porto Fino Mine, Cherokee, Tuolumne County, California. Frank Drake, M.D. August 11, 1892.

13166. **Pyrite** (bisulphide of iron). Colorado. J. Z. Davis. August 13, 1892.

13167. **Coal**—Lignite. Ungalakleet Mine, Norton Sound, Alaska. A. E. Karlson. August 13, 1892.

13168. **Basalt**—Amygdaloidal, which contains a large cavity lined with Mammillary Calcite. From the paving block quarries at Petaluma, Sonoma County, California. J. P. Stanley. August 13, 1892.

13169. **Tin Ore.** Cajalco Mine, Temescal, San Bernardino County, California. E. W. Jones. August 18, 1892.

13170. **Tin Ore.** Peculiar variety called by the miners "white tin." Cajalco Mine, Temescal, San Bernardino County, California. August 18, 1892.

13171. **Slag.** From the smelting furnace at the reduction works at Temescal, San Bernardino County, California. August 18, 1892.

13172. **Scum.** From the refining of the crude metal, consisting of the impurities with some metallic tin. Temescal, San Bernardino County, California. E. W. Jones. August 18, 1892.

13173. **Tin**—In fine needle-shaped crystals of great beauty. Found under the old hearth of the smelting furnace at Temescal, San Bernardino County, California. E. W. Jones. August 18, 1892.

13174. **Sulphur**—Native. Sulphur Bank, Lake County, California. August 19, 1892.

13175. **Galena** (sulphide of lead). Fine crystals in fossil oyster shell. Leadville, Colorado. J. Z. Davis. August 27, 1892.

13176. **Dolomite.** From a ledge 200 feet wide, owned by Dr. T. C. Stockton, San Diego County, California. August 29, 1892.

13177. **Gold Quartz,** rich in free gold. Noonday Mine, Tuolumne District, Tuolumne County, California. J. F. O'Gorman. August 29, 1892.

13178. **Gold** in Hematite. Our Flag Mine, Calaveras County, California. T. H. McArdle. August 29, 1892.

13179. **Quartz**—Black. Klamath Falls, Siskiyou County, California. Judge M. J. Parker. August 31, 1892.

13180. **Gold Quartz.** Knownothing Mine, 10 miles southeast of Forks of Salmon River, on Knownothing Creek, Siskiyou County, California. August 31, 1892.

13181. **Gold Quartz.** From a ledge on the North Fork of Coffee Creek, Scott Mountain, Trinity County, California. August 31, 1892.

13182. **Gold Quartz,** showing free Gold. Gold Run Mine, Etna, Siskiyou County, California. From the Company. August 31, 1892.

13183. **Gold Quartz.** Siskiyou Mine, altitude 5,300 feet, at the head of White Gulch, 6 miles east of Sawyer's Bar, Siskiyou County, California. From the Company. August 31, 1892.

13184. **Gold Quartz.** North Star Mine, Humbug District, Siskiyou County, California. Gonzales, Osborn & Boyle. August 31, 1892.

13185. **Gold Quartz.** Empire Mine, Empire Creek, near Honolulu, Siskiyou County, California. From the Company. August 31, 1892.

13186. **Gold Quartz.** Mountain Belle Mine, Humbug District, Siskiyou County, California. Cartwright & Phillips. August 31, 1892.

13187. **Gold Quartz.** Spencer Mine, Humbug District, Siskiyou County, California. From the Company. August 31, 1892.

13188. **Gold Quartz.** Blaine Mine, Humbug District, Siskiyou County, California. From the Company. August 31, 1892.

13189. **Magnesite** (carbonate of magnesia) of superior quality. Chiles Valley, Napa County, California. W. P. Bartlett. August 31, 1892.

With this is a sample of the calcined magnesite prepared for special uses. Monthly production, 250 tons.

13190. **Confederate States Currency.** Three specimens, $10, $20, and $50, respectively. John C. Uhle. September 2, 1892.

13191. **Gold Quartz.** Montgomery Mine, Cherokee, Tuolumne County, California. Dr. M. F. Drake. September 8, 1892.

13192. **Soapstone.** Santa Catalina Island, Los Angeles County, California. T. P. Lukens. September 8, 1892.

13193. **Placer Gold.** Campbell Mine, Quartz Valley, Siskiyou County, California. R. H. Campbell Gold Mining Company. September 12, 1892.

13194. **Slate.** Calcareous, water-worn slate. McCloud, Shasta County, California. September 14, 1892.

13195. **Asbestus** (silicate of magnesium, iron, calcium, and aluminum). Sutter Creek, Amador County, California. E. Voorhies. September 14, 1892.

13196. **Gold Quartz.** Columbia Mine, Scott River, Siskiyou County, California. George Classen. September 15, 1892.

13197. **Gold Quartz.** Golden Eagle Mine, Scott River, Siskiyou County, California. George Classen. September 15, 1892.

13198. **Tantalite and Columbite** (tantalate and columbate of iron). Reynolds' Mine, Kings Creek District, Fresno County, California. Edward Hooper. September 16, 1892.

13199. **Slate.** Roofing Slate from a large body near the railroad, on the Pend d'Oreille River, Kootenai County, Idaho. James Sudweeks. September 21, 1892.

13200. **Model of a Three-Compartment Mine Shaft,** made to a scale of one inch to the foot, showing the method of timbering in use in the principal mines of the Pacific Coast. The model has two working compartments, and one for the pumps. In practice the shaft is "lagged" all around behind the timbers with two-inch planks running up and down from the center of one wall plate to the center of the next.

13201. **Quicksilver Ore**—Rich Cinnabar. Abbott Mine, Lake County, California. J. A. Veatch. September 22, 1892.

13202. **Metacinnabarite** (black sulphide of mercury). Abbott Mine, Lake County, California. J. A. Veatch. September 22, 1892.

13203. **Lava**—Three specimens. From the crater of the volcano Kilaeua, Hawaii, which was formed by the eruption of 1891. Herbert C. Adams. September 27, 1892.

13204. **Indian Stone Mortar.** Found at a depth of 60 feet below the surface in the auriferous gravel at Indian Dry Diggings, El Dorado County, California, in the year 1865. James Blair. September 27, 1892.

13205. **Indian Stone Mortar.** Found in the auriferous gravel, about 32 feet below the surface, near Michigan Bar, Sacramento County, California, in the year 1862. J. P. Odbert. September 27, 1892.

13206. **Gold Quartz.** Grizzly Ridge Mine, Nevada County, California. P. McAuslan. September 27, 1892.

13207. **Photographs** — Fifteen underground and surface views of mines of Amador County, California. George D. Stewart. September 27, 1892.

13208. **Boleite** (chloride of lead, silver, and copper). Amelia Mine, Soledad Group, Boleo, Lower California, Mexico. Compañia del Boleo. September 28, 1892.

13209. **Awaruite.** A rare mineral consisting of Nickel, 72 per cent, and Iron, 25 per cent. Josephine County, Oregon. James A. Scott. September 28, 1892.

13210. **Marble.** Colton, San Bernardino County, California. J. Z. Davis. September 28, 1892.

13211. **Auriferous Gravel.** From old river channel, southeast of Yreka, Siskiyou County, California. September 28, 1892.

This gravel is capped with the sandstone and conglomerate containing impressions of cretaceous fossils, Trigonia (see No. 13,244), instead of the lava usually met with in similar cases in California.

13212. **Chrysotile,** a variety of Serpentine. Matheson's Ranch, Marin County, California. C. A. Matheson. October 3, 1892.

13213. **Copper Ore**—Melaconite and Chrysocolla. San Luis Mine, Soledad Group, Santa Rosalia del Carmen, North Boleo, Lower California, Mexico. Compañia del Boleo. October 4, 1892.

13214. **Copper Ore**—Melaconite and Malachite. Amelia Mine, Soledad Group, Santa Rosalia del Carmen, North Boleo, Lower California, Mexico. Compañia del Boleo. October 4, 1892.

13215. **Copper Ore**—Chrysocolla. San Luis Mine, Soledad Group, Santa Rosalia del Carmen, North Boleo, Lower California, Mexico. Compañia del Boleo. October 4, 1892.

13216. **Copper Ore**—Malachite. La Ley Mine, Purgatorio Group, Santa Rosalia del Carmen, North Boleo, Lower California, Mexico. Compañia del Boleo. October 4, 1892.

13217. **Copper Ore**—Malachite. Humboldt Mine, Purgatorio Group, Santa Rosalia del Carmen, North Boleo, Lower California, Mexico. Compañia del Boleo. October 4, 1892.

13218. **Copper Ore**—Azurite. La Ley Mine, Purgatorio Group, Santa Rosalia del Carmen, North Boleo, Lower California, Mexico. Compañia del Boleo. October 4, 1892.

13219. **Copper Ore**—Chrysocolla and Cuprite. Carmen Mine, Providencia Group, Santa Rosalia del Carmen, North Boleo, Lower California, Mexico. Compañia del Boleo. October 4, 1892.

13220. **Copper Ore**—Melaconite. Carmen Mine, Providencia Group, Santa Rosalia del Carmen, North Boleo, Lower California, Mexico. Compañia del Boleo. October 4, 1892.

13221. **Copper Ore**—Azurite and Melaconite. Carmen Mine, Providencia Group, Santa Rosalia del Carmen, North Boleo, Lower California, Mexico. Compañia del Boleo. October 4, 1892.

13222. **Copper Ore**—Chrysocolla. Carmen Mine, Providencia Group, Santa Rosalia del Carmen, North Boleo, Lower California, Mexico. Compañia del Boleo. October 4, 1892.

13223. **Antimony Ore**—Stibnite. Caliente, Kern County, California. Summer & Brown. October 5, 1892.

13224. **Gold.** Placer Gold from the Red Flat Mine, Cañon Creek District, Trinity County, California. C. Dannenbrink. October 5, 1892.

13225. **Prehnite** (silicate of aluminum and calcium). Somerville, Massachusetts. F. Bacheller. October 5, 1892.

13226. **Limestone,** with Pyrite and Mica. Head of Nacimiento Creek, Monterey County, California. October 5, 1892.

13227. **Gneiss,** variety called Augen-gneiss (Eye-gneiss), with large aggregations of feldspar. Frazer Mountain, Ventura County, California. October 5, 1892.

13228. **Tufa**—Calcareous, and which might be useful in the manufacture of cement. False Bay, San Diego County, California. October 5, 1892.

13229. **Wollastonite** (silicate of calcium). Hunting Creek Cañon, near Knoxville, Napa County, California. October 5, 1892.

13230. **Serpentine.** From a naturally polished dyke near Knoxville, Napa County, California. October 5, 1892.

13231. **Quartz** of very peculiar structure with loosely imbedded fragments. South Fork Mining District, Shasta County, California. October 5, 1892.

13232. **Fossiliferous Rock.** Stinking Creek, Shasta County, California. October 5, 1892.

13233. **Basalt**—Altered to its present state by solfataric action, probably assisted by sulphurous acid vapors. Sulphur Creek, Colusa County, California. October 5, 1892.

13234. **Fossil Coral**—Three specimens, showing two varieties. Cretaceous fossils, from Carrizo Mountain, western edge of the Colorado Desert, San Diego County, California. October 6, 1892.

13235. **Ammonites hoffmanni** (?). Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 6, 1892.

13236. **Hamites vancouverensis** (?). Gabb. Cretaceous fossils. Two specimens, the larger one from Point Loma, the smaller from La Jolla, San Diego County, California. October 6, 1892.

13237. **Gold Quartz.** Indian Valley Mine, Indian Valley, Plumas County, California. Melville Atwood. October 7, 1892.

13238. **Anomia subcostata.** Con. Pliocene fossil. Carrizo Creek, Colorado Desert, San Diego County, California. October 7, 1892.

13239. **Pecten deserti.** Con. Pliocene fossil. Carrizo Creek, Colorado Desert, San Diego County, California. October 7, 1892.

13240. **Asbestus** (silicate of magnesium, iron, calcium, and aluminum). Pritchard Placer Mine, Iowa Hill, Placer County, California. H. G. Staab. October 7, 1892.

13241. **Gypsum** (sulphate of calcium). From near the sulphur springs on Mount Shasta, Siskiyou County, California. October 10, 1892.

13242. **Awaruite** (Nickel, 67 per cent; Iron, 31 per cent). Frequently met with in the auriferous gravel in the placer mines in Josephine County, Oregon. Judge W. K. Hanna. October 10, 1892.

13243. **Auriferous Black Sand.** Ocean beach, near Lake Merced, San Francisco, California. October 10, 1892.

13244. **Sandstone Conglomerate,** with impressions of cretaceous fossils; capping of the auriferous gravel, No. 13,211. Siskiyou County, California. October 14, 1892.

13245. **Silicified Wood**—Opalized variety. Cow Creek, Shasta County, California. J. W. Conant. October 14, 1892.

13246. **Wood,** probably Juniper (Juniperus occidentalis), curiously eaten by ants. From the headwaters of the American River, El Dorado County, California. W. Q. Mason. October 15, 1892.

13247. **Tapa**—Native cloth made from the bark of paper mulberry. Herbert C. Adams. October 15, 1892.

These two specimens were obtained from the tomb of King Lunalilo I, and are supposed to be some of the first tapa ever made in the Hawaiian Islands.

13248. **Fusulina cylindrica.** Fischer. Carboniferous fossil. Gray Mountains, near Stillwater, Shasta County, California. October 17, 1892.

13249. **Fusulina robusta.** Meek. Carboniferous fossil. Gray Mountains, near Stillwater, Shasta County, California October. 17, 1892.

13250. **Lithostrotion mamillare.** Castelnau. Carboniferous fossil. Gray Mountains, near Stillwater, Shasta County, California. October 17, 1892.

13251. **Lithostrotion** Sp. (?). Carboniferous fossil. Gray Mountains, near Stillwater, Shasta County, California. October 17, 1892.

13252. **Clisiophyllum gabbi.** Meek. Carboniferous fossil. Gray Mountains, near Stillwater, Shasta County, California. October 17, 1892.

13253. **Productus semireticulatus.** Martin. Carboniferous fossil. Gray Mountains, near Stillwater, Shasta County, California. October 17, 1892.

13254. **Tellina decurtata.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13255. **Cerithium pillinge.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13256. **Neverita secta.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13257. **Cinulia obliqua.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13258. **Cylichna costata.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13259. **Helcion dichotoma.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13260. **Lithophagus oviformis.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13261. **Angaria ornatissima.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13262. **Patella traski.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13263. **Actæonina pupoides.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13264. **Trapezium carinatum.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13265. **Ammonites whitneyi.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13266. **Mytilus pauperculus.** Gabb. Cretaceous fossil. Point Loma, and Kelly's Ranch, between Encinitas and San Luis Rey, San Diego County, California. October 19, 1892.

13267. **Pecten californicus.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13268. **Perissolax brevirostris.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13269. **Lunatia conradiana.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13270. **Nucula truncata.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13271. **Lucina nasuta.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13272. **Tellina ovoides.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13273. **Ampullina striata.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13274. **Solen diegoensis.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13275. **Magerlia,** Nov. Sp.? Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13276. **Leda gabbi.** Con. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13277. **Fusus tumidus.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13278. **Lima microtis.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13279. **Arca breweriana.** Gabb. Cretaceous fossil. Point Loma, and Kelly's Ranch, between Encinitas and San Luis Rey, San Diego County, California. October 19, 1892.

13280. **Tellina æqualis.** Gabb. Cretaceous fossil. Point Loma, and Kelly's Ranch, between Encinitas and San Luis Rey, San Diego County, California. October 19, 1892.

13281. **Astarte mathewsoni.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13282. **Tellina whitneyi.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13283. **Lima appressa.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13284. **Meretrix arata.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13285. **Tapes quadrata.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13286. **Urosyca caudata.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13287. **Mytilus quadratus.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13288. **Cardium placerensis.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13289. **Ancyloceras cooperi.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13290. **Axinæa veatchi.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13291. **Pholodomya breweri.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13292. **Venus varians.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13293. **Gryphæa vesicularis.** Lam. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13294. **Inoceramus vancouverensis.** Shum. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13295. **Crassatella** (Astarte) **tuscana.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. October 19, 1892.

13296. **Auriferous Vein Matter.** Queen Mine, Salmon Mountain, Coos County, Oregon. Dr. G. D. Elgin. October 22, 1892.

13297. **Copper,** Native, with Cuprite (oxide of copper). Queen Mine, Salmon Mountain, Coos County, Oregon. Divelbis Bros. October 22, 1892.

13298. **Procetus ellipticus.** Meek & Worthen. Lower carboniferous fossil. McCloud River, Shasta County, California. October 22, 1892.

13299. **Rubellite** (red tourmaline). Hebron, Maine. F. Bacheller. October 22, 1892.

13300. **Gneiss.** Near the western edge of the Colorado Desert, east of Campo, San Diego County, California. October 26, 1892.

13301. **Silver Ore.** Greenhorn, Baker County, Oregon. T. N. Mellis. October 26, 1892.

13302. **Copper Ore.** Greenhorn, Baker County, Oregon. T. N. Mellis. October 26, 1892.

13303. **Spirifer missouriensis.** Shum. Carboniferous fossil. McCloud River, Shasta County, California. October 26, 1892.

13304. **Haliotis** Sp? Cretaceous fossil. Point Loma, San Diego County, California. October 26, 1892.

13305. **Axinæa sagittata.** Gabb. Eocene fossil. Kelly's Ranch, and Rose Cañon, San Diego County, California. October 27, 1892.

13306. **Cylichna costata.** Gabb. Eocene fossil. Kelly's Ranch (between Encinitas and San Luis Rey), Rose Cañon, and False Bay, San Diego County, California. October 27, 1892.

13307. **Conus remondi.** Gabb. Eocene fossil. False Bay, San Diego County, California. October 27, 1892.

13308. **Cardita planicosta.** Lam. Eocene fossil. Rose Cañon and False Bay, San Diego County, California. October 27, 1892.

13309. **Cardium cooperi.** Gabb. Eocene fossil. Rose Cañon, San Diego County, California. October 27, 1892.

13310. **Meretrix horni.** Gabb. Eocene fossil. Rose Cañon, San Diego County, California. October 27, 1892.

13311. **Euspira alveata.** Con. Eocene fossil. Rose Cañon and False Bay, San Diego County, California. October 27, 1892.

13312. **Neverita globosa.** Gabb. Eocene fossil. Rose Cañon, San Diego County, California. October 27, 1892.

13313. **Galerus excentricus.** Gabb. Eocene fossil. Rose Cañon and False Bay, San Diego County, California. October 27, 1892.

13314. **Cerithopsis alternata.** Gabb. Eocene fossil. Rose Cañon, San Diego County, California. October 27, 1892.

13315. **Olivella mathewsoni.** Gabb. Eocene fossil. Rose Cañon, San Diego County, California. October 27, 1892.

13316. **Morio tuberculatus.** Gabb. Eocene fossil. Rose Cañon and False Bay, San Diego County, California. October 27, 1892.

13317. **Mytilus ascia.** Gabb. Eocene fossil. Rose Cañon and La Jolla, San Diego County, California. October 27, 1892.

13318. **Turritella chicoensis.** Gabb. Eocene fossil. Kelly's Ranch and Rose Cañon, San Diego County, California. October 27, 1892.

13319. **Ficopsis remondi.** Gabb. Eocene fossil. Rose Cañon and False Bay, San Diego County, California. October 27, 1892.

13320. **Architectonica horni.** Gabb. Eocene fossil. Rose Cañon and False Bay, San Diego County, California. October 27, 1892.

13321. **Dentalium cooperi.** Gabb. Eocene fossil. False Bay, San Diego County, California. October 27, 1892.

13322. **Coralliochama orcutti.** White. Cretaceous fossil. Ensenada, Lower California, Mexico. October 27, 1892.

13323. **Fusus** Nov. Sp. Eocene fossil. False Bay, San Diego County, California. October 27, 1892.

13324. **Venus æquilateralis.** Gabb. Eocene fossil. False Bay, San Diego County, California. October 27, 1892.

13325. **Neverita secta.** Gabb. Eocene fossil. Rose Cañon, San Diego County, California. October 27, 1892.

13326. **Crassatella uvasana.** Con. Eocene fossil. Kelly's Ranch and Rose Cañon, San Diego County, California. October 27, 1892.

13327. **Perissolax blakei.** Con. Eocene fossil. Rose Cañon, San Diego County, California. October 27, 1892.

13328. **Surcula præattenuata.** Gabb. Eocene fossil. Rose Cañon, San Diego County, California. October 27, 1892.

13329. **Ancillaria elongata.** Gabb. Eocene fossil. False Bay, San Diego County, California. October 27, 1892.

13330. **Fusus diaboli.** Gabb. Eocene fossil. Rose Cañon, San Diego County, California. October 27, 1892.

13331. **Naticina obliqua.** Gabb. Eocene fossil. Rose Cañon, San Diego County, California. October 27, 1892.

13332. **Chione varians.** Gabb. Cretaceous fossil. La Jolla, San Diego County, California. October 27, 1892.

13333. **Corbula parilis.** Gabb. Eocene fossil. False Bay, San Diego County, California. October 27, 1892.

13334. **Septifer dichotomus.** Gabb. Eocene fossil. False Bay and La Jolla, San Diego County, California. October 27, 1892.

13335. **Tellina horni.** Gabb. Eocene fossil. False Bay, San Diego County, California. October 27, 1892.

13336. **Avicula pellucida.** Gabb. Eocene fossil. False Bay, San Diego County, California. October 27, 1892.

13337. **Dosinia gyrata.** Gabb. Eocene fossil. Rose Cañon, San Diego County, California. October 27, 1892.

13338. **Dentalium stramineum.** Gabb. Eocene fossil. Rose Cañon, San Diego County, California. October 27, 1892.

13339. **Solen diegoensis.** Gabb. Eocene fossil. Rose Cañon, San Diego County, California. October 27, 1892.

13340. **Coralliochama orcutti.** White. Cretaceous fossil. Point Loma, San Diego County, California. October 27, 1892.

13341. **Pecten traski.** Gabb. Cretaceous fossil. La Jolla, San Diego County, California. October 27, 1892.

13342. **Solen parallelus.** Gabb. Cretaceous fossil. La Jolla, San Diego County, California. October 27, 1882.

13343. **Schist** — Chloritic quartz-schist. Crumpled. North Yallo Bally Mountain, Tehama County, California. October 28, 1892.

13344. **Sinter** — Silicious. Manhattan Mine, near Knoxville, Napa County, California. October 28, 1892.

13345. **Tufa** — Silicious. From an extinct spring, near Bartlett's, Lake County, California. October 28, 1892.

13346. **Volcanic Ash.** Gas Point, Shasta County, California. October 28, 1892.

13347. **Silver Ore,** chiefly galena and stibnite, but showing **Native Silver.** Mongolia Mine, China. John Bryant. October 28, 1892.

13348. **Gold Quartz,** showing free gold. E. D. M. Mine, Quartz Valley, Siskiyou County, California. Andrew G. Myers. October 29, 1892.

13349. **Fossils**—Pliocene. Crepidula, Cardium, Purpura, Olivella, and Nassa. From the ocean beach, between Lake Merced and Mussel Rock, San Mateo County, California. November 5, 1892.

13350. **Shark's Tooth.** Carcharodon rectus. Ag. Pliocene fossil. Barker Ranch, Kern County, California. November 9, 1892.

13351. **Mica**—Hydrated, and which appears to be identical with the mineral from San Antonio, Lower California, formerly called "Antonite." From near Kennett, Shasta County, California. Walter Friday. November 9, 1892.

13352. **Murex trialatus.** Sby. Quaternary fossil. Sespe, Ventura County, California. November 12, 1892.

13353. **Cobalt and Nickel Ore**—Smaltite and Chloanthite (arsenide of cobalt and nickel). Lovelock's Mine, Cottonwood Cañon, Churchill County, Nevada. D. H. Haskell. November 18, 1892.

13354. **Cobalt and Nickel Ore**—Erythrite, Millerite, and Annabergite (hydrous arsenate of cobalt, sulphide of nickel, and hydrous arsenate of nickel). Lovelock's Mine, Cottonwood Cañon, Churchill County, Nevada. D. H. Haskell. November 18, 1892.

13355. **Rutile** (titanic acid) in crystals. Swan County, North Carolina. Williamsburgh Scientific Society. November 22, 1892.

13356. **Gold Quartz.** Spanish Shaft, Reed Con. Mines, Old Diggings District, seven miles north of Redding, Shasta County, California. Robert Stevenson, Manager. November 30, 1892.

Assay by Luckhardt, gold, $522 00; silver, 25 ounces per ton. Specimen from a depth of seventy feet below the water level.

13357. **Indian Arrowpoints of Obsidian.** Five specimens. Freestone, Sonoma County, California. Robert Macken. December 5, 1892.

13358. **"Phosphate Rock."** Said to contain 80 per cent of phosphate of lime. From the mines of the Marion Phosphate Company, Florida. Bro. Hermann Jaske. December 5, 1892.

13359. **Esquimau Adze of Jade.** Cape Lisbon, north of Icy Cape, Alaska. Peter Bayne. December 9, 1892.

13360. **Esquimau Ax of Jade.** Cape Lisbon, north of Icy Cape, Alaska. Peter Bayne. December 9, 1892.

13361. **Quartz Crystal.** Kinpozan, Komagori Kai, Japan. December 12, 1892.

13362. **Copper**—Native. Ozaruzawa, Kazunogori, Ugo, Japan. December 12, 1892.

13363. **Chalcopyrite** (sulphide of copper and iron). Ani Mine, Kita, Akitagori, Ugo, Japan. December 12, 1892.

13364. **Chalcopyrite** (sulphide of copper and iron). Kusakura-Higashi, Kambaragori, Echigo, Japan. December 12, 1892.

13365. **Feldspar**—Orthoclase. Sekitsu, Kurifutogori, Omi, Japan. December 12, 1892.

13366. **Quartz Crystals**—Smoky. Yamada, Igugori, Iwaki, Japan. December 12, 1892.

13367. **Quartz Crystals** (3). Kurushima, Minamimatsuuragori, Hozen, Japan. December 13, 1892.

13368. **Topaz** (silicate of aluminum), 15 crystals. Otaniyama, Kurifutogori, Omi, Japan. December 13, 1892.

13369. **Anorthite** (silicate of aluminum and calcium), 9 crystals. Kandsuki, Miyakejima, Japan. December 13, 1892.

13370. **Silicified Palm Wood.** Jefferson County, Colorado. December 14, 1892.

13371. **Heulandite** (hydrous silicate of aluminum and calcium). Table Mountain, Colorado. December 14, 1892.

13372. **Mesolite** and **Chabazite** (hydrous silicates of aluminum, calcium, sodium, and potassium) in Dolerite. Table Mountain, Colorado. December 14, 1892.

13373. **Chabazite** and **Natrolite** (hydrous silicates of aluminum, calcium, sodium, and potassium). Golden, Colorado. December 14, 1892.

13374. **Analcite** (hydrous silicate of sodium and aluminum) in Dolerite. Golden, Colorado. December 14, 1892.

13375. **Thomsonite** (hydrous silicate of aluminum, calcium, and sodium). Golden, Colorado. December 14, 1892.

13376. **Natrolite, Chabazite,** and **Thomsonite.** Golden, Colorado. December 14, 1892.

13377. **Johannite** (sulphate of uranium). Wood Lode, Central City, Colorado. December 14, 1892.

13378. **Alabandite** (sulphide of manganese). Queen of the West Mine, Clear Creek County, Colorado. December 14, 1892.

13379. **Pitchstone** (a variety of feldspar). Colorado Central Mine, Georgetown, Colorado. December 14, 1892.

13380. **Feldspar**—Orthoclase. Florissant, Colorado. December 14, 1892.

13381. **Feldspar**—Microline. Florissant, Colorado. December 14, 1892.

13382. **Barite** (sulphate of barium), crystallized. 7-30 Mine, Georgetown, Colorado. December 14, 1892.

13383. **Barite**—Blue variety. Sterling, Colorado. December 14, 1892.

13384. **Zircon** (silicate of zirconium). El Paso County, Colorado. December 14, 1892.

13385. **Aragonite** (carbonate of calcium). South Park, Colorado. December 14, 1892.

13386. **Conichalcite** (arseno-phosphate of copper and calcium). Centennial Eureka Mine, Tintic District, Utah. December 14, 1892.

13387. **Niccolite** (arsenide of nickel). Gem Mine, Custer County, Colorado. December 14, 1892.

13388. **Stromeyerite** (sulphide of silver and copper). In ore from the Yankee Girl Mine, Red Mountain, Colorado. Ore carries 2,600 ounces silver per ton. December 14, 1892.

13389. **Schirmirite** (sulphide of bismuth, silver, and lead). Treasure Vault Mine, Summit County, Colorado. December 14, 1892.

13390. **Tetrahedrite** (sulph-antimonide of copper) and **Galena**. Whale Mine, Hall's Valley, Colorado. December 14, 1892.

13391. **Silver Ore**, with copper, lead, and zinc. 7-30 Mine, Silver Plume, Colorado. December 14, 1892.

13392. **Arsenic**—Native. Leadville, Colorado. Occurs in nodules. December 14, 1892.

13393. **Celestite** (sulphate of strontium), fibrous variety. Garden of the Gods, Colorado. December 14, 1892.

13394. **Celestite** (sulphate of strontium), crystallized. Garden of the Gods, Colorado. December 14, 1892.

13395. **Tellurium.** Mountain Lion Mine, Magnolia District, Boulder County, Colorado. December 14, 1892.

13396. **Tellurium.** In ore from the Sitting Bull Mine, Salina, Boulder County, Colorado. December 14, 1892.

13397. **Sylvanite** (telluride of gold and silver), crystallized. Boulder County, Colorado. December 14, 1892.

13398. **Garnets** in Rhyolite. Nathrop, Colorado. December 14, 1892.

13399. **Garnet.** Chaffee County, Colorado. December 14, 1892.

13400. **Sphalerite** (sulphide of zinc). Maine Mine, Georgetown, Colorado. December 14, 1892.

13401. **Polybasite** (sulph-antimonide of silver). Joe Reynolds Mine, Clear Creek County, Colorado. December 14, 1892.

13402. **Gothite** (hydrate of iron). Florissant, Colorado. December 14, 1892.

13403. **Galena** (sulphide of lead). Mendota Mine, Silver Plume, Colorado. December 14, 1892.

13404. **Pyrite** (bisulphide of iron). Fort Collins. Colorado. December 14, 1892.

13405. **Pyrite** (bisulphide of iron). Central, Colorado. December 14, 1892.

13406. **Magnetite** (protosesquioxide of iron). Pitkin County, Colorado. December 14, 1892.

13407. **Byssolite** (a variety of amphibole), in quartz crystals. Salida, Chaffee County, Colorado. December 14, 1892.

13408. **Porphyry.** Jamul Grant, San Diego County, California. December 21, 1892.

13409. **Norite.** Summit of Cuyamaca Peak, San Diego County, California. December 21, 1892.

13410. **Felsite**—Amygdaloidal. Head of Sweetwater Dam, San Diego County, California. December 21, 1892.

13411. **Iron Ores.** Four specimens, chiefly **Limonite,** from the mines of the Amaga Iron Works Company; and **Coal,** lignite, from a mine in the vicinity of Amaga, Colombia, South America. J. de la C. Posada. December 28, 1892.

13412. **Quicksilver Ore.** Last Chance Mine, Pine Flat, Sonoma County, California. C. A. Grimmer. December 28, 1892.

13413. **Antimony Ore**—Stibnite in Calcite. South Riverside, San Bernardino County, California. John N. Anderson. December 29, 1892.

13414. **Zaratite** (hydrous carbonate of nickel) on Chromic Iron. First discovery of this mineral in California. Madera, Fresno County, California. James Brusie. December 29, 1892.

13415. **Gold Quartz,** showing free gold. Texas Consolidated Mine, Buckeye District, 9 miles north of Redding, Shasta County, California. G. W. Fleming. January 3, 1893.

13416. **Copper**—Native, pseudomorph after Chalcopyrite. Apollo Mine, Unga Island, Alaska. Capt. C. J. Hague. January 12, 1893.

13417. **Auriferous Vein Matter.** Apollo Mine, Unga Island, Alaska. Said to assay $551 40 gold per ton. Capt. C. J. Hague. January 12, 1893.

13418. **Pyrite**—Iridescent. Kreling Mine, Calaveras County, California. Edwins & Davison. January 12, 1893.

13419. **Platinum.** Average sample of $2\frac{6}{10}$ pounds, product of the washing of 1,440,000 pounds of earth, at the Demidoff Estate, Nijni Tagilsk, Perm, Ural Mountains, European Russia, July, 1891. Geo. F. Kunz. January 12, 1893.

13420. **Platinum Gravel.** Martian System, Demidoff Estate, Nijni Tagilsk, Perm, Ural Mountains, European Russia, July, 1891. Geo. F. Kunz. January 12, 1893.

13421. **Concentrate** from the gravel, No. 13420, after the first washing and before the removal of the platinum. Demidoff Estate, Nijni Tagilsk, Perm, Ural Mountains, European Russia, July, 1891. Geo. F. Kunz. January 12, 1893.

13422. **Concentrate** from the gravel, No. 13420, after the second washing and removal of the platinum. Demidoff Estate, Nijni Tagilsk, Perm, Ural Mountains, European Russia, July, 1891. Geo. F. Kunz. January 12, 1893.

13423. **Coal**—Lignite. Stone Coal Valley, Modoc County, California. N. A. Freeman. January 12, 1893.

13424. **Anhydrite** (sulphate of calcium). Hillsboro, New Brunswick. J. Z. Davis. January 14, 1893.

13425. **Anhydrite** (sulphate of calcium). Berchtesgaden, Baden, Germany. J. Z. Davis. January 14, 1893.

13426. **Calcite** (carbonate of calcium). Pseudomorph after Gay-Lussite. Sangerhausen, Thuringia. J. Z. Davis. January 14, 1893.

13427. **Jet** (a variety of lignite). Spain. J. Z. Davis. January 14, 1893.

13428. **Apopyhyllite** (hydrous silicate of calcium and potassium). Paterson, New Jersey. J. Z. Davis. January 14, 1893.

13429. **Garnet**, var. Grossularite, with Vesuvianite in Calcite. Xalostoc, District of Cuantla, Morelos, Mexico. J. Z. Davis. January 14, 1893.

13430. **Biotite**—Magnesia Mica (silicate of aluminum, magnesium, potassium, and iron) in Calcite. Franklin, New Jersey. January 14, 1893.

13431. **Tourmaline**—Green (boro-silicate of aluminum and magnesium), in Lepidolite and Quartz. Mount Apatite, Auburn, Maine. January 14, 1893.

13432. **Tourmaline**—Green (boro-silicate of aluminum and magnesium), with **Albite** (soda feldspar). Mount Apatite, Auburn, Maine. January 14, 1893.

13433. **Zincite** (oxide of zinc). Franklin, New Jersey. January 14, 1893.

13434. **Sulphur**, with Celestite. Sicily. January 14, 1893.

13435. **Tremolite** (a variety of amphibole). Warren, New Hampshire. C. D. Stone. January 21, 1893.

13436. **Tremolite** (a variety of amphibole), with Rutile and Pyrite. January 21, 1893.

13437. **Gold Quartz.** Doe & Daggett Mine, Siskiyou County, California. John Daggett. January 21, 1893.

13438. **Gold Quartz.** Clinton Consolidated Mine, Wieland, Amador County, California. From the Company. January 21, 1893.

13439. **Gold Quartz.** Irma Mine, 4 miles southeast from Volcano, Amador County, California. From the Company. January 21, 1893.

13440. **Hornblende** (silicate of magnesium, iron, calcium, and aluminum). Fresno County, California. Dr. J. D. Clark. January 23, 1893.

13441. **Silver Ore,** with Gold. Unknown Mine, Custer, Idaho. H. H. Knapp. January 24, 1893.

Said to assay $2,000 per ton.

13442. **Silver Ore,** with Gold. General Custer Mine, Custer, Idaho. H. H. Knapp. January 24, 1893.

Said to assay $700 per ton.

13443. **Silver Ore,** with Gold. Lucky Boy Mine, Custer Mountain, Idaho. H. H. Knapp. January 24, 1893.

13444. **Silver Ore,** with Gold. Charles Dickens Mine, Idaho. H. H. Knapp. January 24, 1893.

Mills $400 per ton.

13445. **Silver Ore.** Yankee Fork Mine, Estee Mountain, Idaho. H. H. Knapp. January 24, 1893.

Altitude of mine, 8,500 feet above the sea. Value of ore, $300 per ton.

13446. **Gold Quartz.** Gold Bronze Mine, Vanderbilt District, San Bernardino County, California. Taggart & Hall, per A. Blanc. January 26, 1893.

Said to assay 15 ounces of gold and 60 ounces of silver per ton.

13447. **Iron Ore,** with Glaucophane. From a ledge on Dry Creek, near Healdsburg, Sonoma County, California. Alma Prows. January 26, 1893.

13448. **Aragonite** (carbonate of calcium). Hathenbruck Quarry, Provo, Utah. Cluff & Dalton. January 26, 1893.

13449. **Epsomite** (sulphate of magnesia). New Almaden Mine, Santa Clara County, California. John Bryant. January 28, 1893.

13450. **Pyrolusite** (binoxide of manganese), with Calcite. Barstow, San Bernardino County, California. J. M. Redfern. January 28, 1893.

13451. **Gilsonite**—Uintahite (a hydrocarbon; variety of asphaltum). From near Buena Vista, Kern County, California. Prof. H. De La Motte. January 28, 1893.

13452. **Josephinite**—Nickel-Iron (a native alloy of nickel and iron). Contains nickel, 60.45 per cent; iron, 23.22 per cent. Illinois River, Josephine County, Oregon. Will Q. Brown. January 28, 1893.

13453. **Iron Ore**—Hematite (micaceous variety). Bangor, Butte County, California. S. A. Sawtelle. January 28, 1893.

13454. **Teeth,** probably of a snake or reptile, used as money by the natives of New Britain. Th. F. Goedicke. February 6, 1893.

13455. **Quicksilver Ore**—Cinnabar, in dolomitic calcite with Bitumen. New Almaden Mine, Santa Clara County, California. Charles E. Derby. February 9, 1893.

13456. **Silver Ore,** with Gold, Bismuth, Copper, Zinc, and Antimony Mariposa Mine, Rosario Mining District, Sinaloa, Mexico. H. W. Faust. February 10, 1893.

13457. **Silver Ore.** Very rich ore, with Embolite and Cerargyrite in crystals. Fame Mine, Globe District, Gila County, Arizona. Alfred Haustein. February 16, 1893.

13458. **Building Stone**—Volcanic. Haddington Island, Broughton's Straits, British Columbia. John Switzer. February 25, 1893.

13459. **Iron Ore.** Western Mine, Curran District, Esmeralda County, Nevada. F. C. Mosebach. February 25, 1893.

Assay by L. Falkenan, State Assayer, 64½ per cent metallic iron; vein, 7 feet across and widening.

13460. **Gold Quartz.** Calmalli Mine, Calmalli, Lower California, Mexico. Schacht, Lemche & Steiner. February 25, 1893.

13461. **Pectolite** (hydrous silicate of calcium and sodium). Santa Ynez, Santa Barbara County, California. P. Montanara. March 6, 1893.

13462. **Certificate of Indebtedness for Three Pounds,** issued by the City Treasurer of Boston, Massachusetts, April 1, 1786, and receivable in payment of taxes to the extent of one third of the amount of the tax. E. N. Cook. March 6, 1893.

13463. **Head of an Idol or Statue,** supposed to be of Toltec origin, carved from cellular lava. Found in a cave at Yagualica, State of Hidalgo, Mexico. Arthur E. Roberts. March 13, 1893.

13464. **Quicksilver Ore**—Cinnabar. Napa Consolidated Mine, Napa County, California. B. M. Newcomb, Superintendent. March 17, 1893.

13465. **Copper Ore**—Chalcopyrite. First-class ore, assaying 20 per cent copper. From the 300-foot level of the Union Mine, Copperopolis, Calaveras County, California. G. McM. Ross, Manager. March 17, 1893.

13466. **Ancyloceras lineatus.** Gabb. Cretaceous fossil. Todos Santos Bay, Lower California, Mexico. March 20, 1893.

This and the following four numbers are from a continuation of the cretaceous formation found at Point Loma, La Jolla, False Bay, etc., in San Diego County, California, and consequently are placed with them.

13467. **Pugnellus** Sp.? Cretaceous fossil. Todos Santos Bay, Lower California, Mexico. March 20, 1893.

13468. **Volutilithes gabbi.** White. Cretaceous fossil. Todos Santos Bay, Lower California, Mexico. March 20, 1893.

13469. **Lunatia avellana.** Gabb. Cretaceous fossil. Todos Santos Bay, Lower California, Mexico. March 20, 1893.

13470. **Baculites chicoensis.** Trask. Cretaceous fossil. Todos Santos Bay, Lower California, Mexico. March 20, 1893.

13471. **Slate.** Roofing-slate from the California Slate Company's quarry, Chile Bar, El Dorado County, California. March 27, 1893.

13472. **Copper Ore.** "Peacock" ore. 500-foot level of the Union Mine, Copperopolis, Calaveras County, California. G. McM. Ross, Manager. March 29, 1893.

13473. **Silver Ore.** "Iron Sulphide." Mahala Mine, Leadville, Colorado. Geo. M. Mitchell. April 6, 1893.

13474. **Silver Ore.** "Lead Sulphide." Mahala Mine, Leadville, Colorado. Geo. M. Mitchell. April 6, 1893.

13475. **Silver Ore.** "Iron Sulphide." Mahala Mine, Leadville, Colorado. Geo. M. Mitchell. April 6, 1893.

13476. **Silver Ore.** "Iron Sulphide." Mahala Mine, Leadville, Colorado. Geo. M. Mitchell. April 6, 1893.

13477. **Silver Ore.** "Iron Sulphide." Mahala Mine, Leadville, Colorado. Geo. M. Mitchell. April 6, 1893.

13478. **Gold Quartz**, showing free gold in Hematite. Brackettown, McDonald County, North Carolina. W. G. Reno. April 6, 1893.

13479. **Gold**—Crystallized. Dry Gulch Mine, El Dorado County, California. Hon. J. J. Crawford. April 6, 1893.

13480. **Fossils**—Sphærium dentatum (Lam.), Amnicola (Nov. Sp.), and vertebra of a fish. Found at a depth of 1,058 feet in the Lambertson artesian well, Tulare County, California. April 6, 1893.

13481. **Jasper.** Summersville, Tuolumne County, California. F. McMillan. April 10, 1893.

13482. **Auriferous Gravel.** From the "lava" channel which cuts the quartz gravel channel, and is from 40 to 50 feet lower, with specimen of the lava capping and shale bedrock of this channel. Ruby Drift Mine, Forest City, Sierra County, California. E. McCormick, Superintendent. April 10, 1893.

13483. **Atacamite** (oxychloride of copper). Manto Tres Gracias, Salado, Chile. From the Sociedad Nacional de Mineria, Santiago, Chile. April 11, 1893.

13484. **Chalcotrichite** in Cuprite (oxide of copper). Lion Mine, T. 17 N., R. 6 W., Colusa County, California. April 11, 1893.

13485. **Cerargyrite** (chloride of silver). Flor del Desierto Mine, Caracoles, Chile. From the Sociedad Nacional de Mineria, Santiago, Chile. April 11, 1893.

13486. **Volcanic Ash.** Capping of auriferous gravel channel in the Black Cañon Mine, Forest Hill, Placer County, California. Ross E. Browne. April 11, 1893.

13487. **Proustite** (sulph-arsenide of silver). Constancia Mine, Chañarcillo, Chile. From the Sociedad Nacional de Mineria, Santiago, Chile. April 11, 1893.

13488. **Pyrargyrite** (sulph-antimonide of silver). Bocona Mine, Chañarcillo, Chile. From the Sociedad Nacional de Mineria, Santiago, Chile. April 11, 1893.

13489. **Cosalite** (sulphide of bismuth and lead, with silver). Candameña, Chihuahua, Mexico. Ross E. Browne. April 11, 1893.

13490. **Pyrargyrite** (sulph-antimonide of silver). Flor de Maria Mine, Chañarcillo, Chile. From the Sociedad Nacional de Mineria, Santiago, Chile. April 11, 1893.

13491. **Argentite** (sulphide of silver). Justicia Mine, Chañarcillo, Chile. From the Sociedad Nacional de Mineria, Santiago, Chile. April 11, 1893.

13492. **Gold Quartz**, showing free gold. Minnie May Mine, Black Hills, Dakota. Harmon Gaghenbaugh. April 14, 1893.

13493. **Cobaltite** (sulph-arsenide of cobalt) in Chalcopyrite. From a claim 4 miles northeast of Alta, on the line of the C. P. R. R., and easy of access, Placer County, California. W. F. Drew. April 14, 1893.

13494. **Auriferous Vein Matter**, with silver, lead, zinc, and copper, etc. 60-foot level of the Apollo Mine, Unga Island, Alaska. Capt. C. J. Hague. April 14, 1893.

13495. **Auriferous Vein Matter**, with silver, etc. 180-foot level of the Apollo Mine, Unga Island, Alaska. Capt. C. J. Hague. April 14, 1893.

13496. **Auriferous Vein Matter,** with silver, etc. 500-foot level of the Apollo Mine, Unga Island, Alaska. Capt. C. J. Hague. April 14, 1893.

13497. **Lead**—Native, in Galenite. Red Elephant Mine, Bullion District, Wood River, Idaho. Geo. Garbutt. April 14, 1893.

13498. **Gold Quartz,** showing free gold. Drum Lummon Mine, Montana. Geo. Garbutt. April 14, 1893.

13499. **Gold Quartz with Cinnabar.** Mercur Mine, Utah. W. H. Storms. April 14, 1893.

13500. **Gold** in Calcite, with Arsenical Pyrite; also very rich in gold. Barnes Mine, near Shingle Springs, El Dorado County, California. J. B. Wright. April 14, 1893.

13501. **Quicksilver Ore**—Rich cinnabar. From a recent discovery near the corner of McAllister and Devisadero Streets, San Francisco, California. John McCarthy. April 28, 1893.

13502. **Copper Ore**—Rich oxide and silicate. Occurs in nodules in serpentine. Mary Union Mine, T. 17 N., R. 6 W., Colusa County, California. April 29, 1893.

13503. **Copper Ore.** From a mine near Stony Ford, Colusa County, California, owned by Califf & Stinchfield. D. B. Stiles. April 29, 1893.

13504. **Slag**—Rich in copper. From an old furnace erected in 1866 near the Lion Mine, Colusa County, California. April 29, 1893.

13505. **Copper Ore.** Angora Mine, Preston Peak, Del Norte County, California. J. H. Harlan. April 29, 1893.

13506. **Gold**—In calcite. E. D. M. Mine, Quartz Valley, Siskiyou County, California. Andrew G. Myers. May 5, 1893.

13507. **Navajo Indian Saddle Blanket.** John Bitter. May 5, 1893.

13508. **Sioux Indian War Head-dress.** Mrs. H. Tuttle. May 5, 1893.

13509. **Cerargyrite**—"Horn Silver" (chloride of silver). Transparent when found. De Lamar Mine, Owyhee County, Idaho. Chas. F. Easton. May 6, 1893.

13510. **Manganese Ore**—Pyrolusite. Faville Mine, Santa Clara County, California. May 11, 1893.

13511. **Limestone.** "Petworth Marble," showing fossil Paludinæ. Lower Wealden Beds, Sussex, England. W. L. Watts. May 11, 1893.

13512. **Conglomerate** of quartz sand and pebbles, with lime and mica, and pieces of wood changing to lignite. Found at a depth of 1,137 feet in an artesian well on Sec. 22, T. 22, R. 24, near Tipton, Tulare County, California. H. G. Anderson. May 15, 1893.

13513. **Calcite** (carbonate of calcium). Auburn, Placer County, California. A. Blanc. May 17, 1893.

13514. **Colemanite** (borate of lime). Calico, San Bernardino County, California. Newton M. Bell. May 17, 1893.

13515. **Cinnabar** (sulphide of mercury). Ætna Consolidated Mine, Napa County, California. Chas. Fuchs. May 17, 1893.

13516. **Aleutian Bydarka** (model). Alaska. E. Krebs. May 23, 1893.

13517. **Aleutian Spears** with detachable heads, and **Throwing Stick,** for sea otter hunting. Alaska. E. Krebs. May 23, 1893.

13518. **Asphaltum** with Calcite. Punta Gorda, Santa Barbara County, California. Punta Gorda Mining, Asphalt, and Paving Company. May 25, 1893.

13519. **Gold Quartz.** Gambetta Mine, Grub Gulch, Fresno County, California. May 25, 1893.

13520. **Gold Quartz.** From 90 feet below the surface in the Savannah Mine, Grub Gulch, Fresno County, California. May 25, 1893.

13521. **Wall Rock.** Foot wall of Savannah Mine. Micaceous slate, cut by granite dike, slate on the upper side. Savannah Mine, Grub Gulch, Fresno County, California. May 25, 1893.

13522. **Gold Quartz.** Starlight-Riverside Mine, Grub Gulch, Fresno County, California. May 25, 1893.

13523. **Gold Quartz.** Butterfly Mine, Potter Ridge, Fresno County, California. May 25, 1893.

13524. **Gold Quartz.** Mammoth Mine, Yosemite Road, Grub Gulch, Fresno County, California. May 25, 1893.

13525. **Epidote** (silicate of aluminum, iron, and calcium). Grub Gulch, Fresno County, California. May 25, 1893.

13526. **Calcite** (carbonate of calcium) with Pyrite. Grub Gulch, Fresno County, California. May 25, 1893.

13527. **Magnesite** (carbonate of magnesia). Half a mile southwest from the Post Office at Grub Gulch, Fresno County, California. May 25, 1893.

13528. **Coal**—Lignite. Mark West Creek, Sonoma County, California. May 25, 1893.

ANALYSIS S. M. B.

Moisture	25.00
Volatile hydrocarbons	29.00
Fixed carbon	33.00
Ash	13.00
	100.00

13529. **Barite** (sulphate of barium). Santa Maria, Santa Barbara County, California. F. Fugler. May 27, 1893.

13530. **Muscovite Mica.** Josephine Mica Mine, Sumner, Kern County, California. J. A. Robbs. May 27, 1893.

13531. **Gold Quartz.** Mariposa Mine, town of Mariposa, Mariposa County, California. June 2, 1893.

13532. **Gold Quartz.** Southern Cross Mine, Damascus, Placer County, California. Ford & Bentley. June 6, 1893.

13533. **Wall Rock.** Inclosing rock of ledge in the Southern Cross Mine, Damascus, Placer County, California. Ford & Bentley. June 6, 1893.

13534. **Gold Quartz.** Pine Tree Vein, Bear Valley, Mariposa County, California. June 9, 1893.

13535. **Gold Quartz.** Josephine Mine, Bear Valley, Mariposa County, California. June 9, 1893.

13536. **Wall Rock.** Talcose Schist with Pyrite. Hanging wall of Josephine Mine, Bear Valley, Mariposa County, California. June 9, 1893.

13537. **Gold Quartz.** Mount Ophir Mine, Bear Valley, Mariposa County, California. June 9, 1893.

13538. **Wall Rock.** Mount Ophir Mine, Bear Valley, Mariposa County, California. June

13539. **Gold Quartz.** French Mine, Bear Valley, Mariposa County, California. June 9, 1893.

13540. **Wall Rock**—Diabase. Forms both walls of French Mine, Bear Valley, Mariposa County, California. June 9, 1893.

13541. **Gold Quartz.** Green Gulch Mine, Princeton, Mariposa County, California. June 9, 1893.

13542. **Wall Rock.** Green Gulch Mine, Princeton, Mariposa County, California. June 9, 1893.

13543. **Wall Rock.** Princeton Mine, Mariposa County, California. June 9, 1893.

13544. **Jasper**—Mottled. From a vein 3 feet thick, 1½ miles west of the Josephine Mine, Bear Valley, Mariposa County, California. June 9, 1893.

13545. **Gold Quartz** with Calcite. Starlight Mine, 3 miles south of Mud Springs, El Dorado County, California. D. W. C. Morgan. June 9, 1893.

13546. **Columbite** (columbate of iron) and **Tantalite** (tantalate of iron). Reynolds Mine, Kings Creek District, Fresno County, California. R. Reynolds. June 9, 1893.

13547. **Erythrite** (hydrous arsenate of cobalt) and **Danaite** (cobaltiferous mispickel). Josephine Mine, Bear Valley, Mariposa County, California. June 9, 1893.

13548. **Iron Ore**—Magnetite. Banning, San Bernardino County, California. C. O. Barker. June 9, 1893.

13549. **Asphaltum.** From bowlder in the hanging wall of the New Almaden Mine, on the 2,450-foot level, Buena Vista shaft. Chas. C. Derby. June 13, 1893.

13550. **Building Stone**—Granite. From a quarry at Yuba Pass, Placer County, California. June 13, 1893.

13551. **Porphyry.** Miner's Ditch, 4½ miles from Dutch Flat, Placer County, California. June 13, 1893.

13552. **Map of California,** with references to the then known mineral localities. Published at Paris, France, in 1850. Eugene E. Chenot. June 16, 1893.

13553. **Gold Quartz,** with free gold and arsenical pyrite. Taylor Claim, Fort Jones, Siskiyou County, California. Andrew G. Myers. June 16, 1893.

13554. **Pebbles.** Beach at Big Lagoon, Humboldt County, California. Dr. A. F. Merriman. June 16, 1893.

13555. **Silver Ore**—Tetrahedrite with argentiferous galena, very rich in silver. Morning View Mine, Wardner, Cœur D'Alene, Idaho. Thos. Hosking. June 16, 1893.

13556. **Gold Quartz.** Hall Mine, Bear Valley, Mariposa County, California. June 20, 1893.

13557. **Gold Quartz.** Ross Mine, 2 miles west from Bear Valley Post Office, Mariposa County, California. June 20, 1893.

13558. **Gold Quartz.** Mexican Mine, 2 miles south from Bear Valley Post Office, Mariposa Grant, Mariposa County, California. June 20, 1893.

13559. **Gold Quartz.** Juniper Mine, Bear Valley, Mariposa County, California. June 20, 1893.

13560. **Gold Quartz.** Smith Mine, 1½ miles south from Bear Valley, Mariposa County, California. Foot wall, diabase; hanging wall, slate. June 20, 1893.

13561. **Gold Quartz.** Swain's Ranch, Yoqui Creek, Mariposa County, California. June 20, 1893.

13562. **Gold Quartz.** From a vein on the west side of the Wilson estate, Hornitos, Mariposa County, California. June 20, 1893.

13563. **Gold Quartz.** Campodonico Mine, 1 mile east of Hornitos, Mariposa County, California. June 20, 1893.

13564. **Gold Quartz.** Quartz Mountain Mine, 2 miles south of Hornitos, Mariposa County, California. June 20, 1893.

13565. **Auriferous Vein Matter.** Sunrise Mine, Kelsey District, El Dorado County, California. G. C. Ranney. June 20, 1893.

13566. **Gold Quartz** rich in free gold, with hanging and foot wall rock. South Idaho Mine, Grass Valley, Nevada County, California. McKinney, Rodgers & O'Keefe. June 26, 1893.

13567. **Coke.** A natural product, taken from a stratum in the coal measures near Pagosa Springs, Archuleta County, Colorado. E. M. Railton. June 26, 1893.

It occurs under a stratum of sandstone, and over the black silicious rock which accompanies the specimen. This in turn rests on a stratum of burned limestone, which slacks when moistened. Above the coke are two strata of good coal lying between layers of sandstone, the formation from the surface to the limestone being about 20 feet thick.

13568. **Auriferous Gravel** with Concentrates. Black Jack Mine, near Callahan's Ranch, Siskiyou County, California. June 26, 1893.

13569. **Quartz**—Laminated. Guadalupe Mine, Rio Seco, Sinaloa, Mexico. W S. Keyes. July 1, 1893.

13570. **Boleite** (chloride of lead, silver, and copper). Very large and fine crystal. Santa Rosalia Mines, Boleo, Lower California, Mexico. Dr. F. Koerdell. July 1, 1893.

13571. **Chrysotile**, in Serpentine. St. Helena, Napa County, California. P. Payne. July 8, 1893.

13572. **Iron Ore**—Limonite. Hornitos, Mariposa County, California. John Muller. July 8, 1893.

13573. **Chiastolite Schist.** Muller's Ranch, near Hornitos, Mariposa County, California. July 12, 1893.

13574. **Iron Ore**—Hematite. Near Mount Raymond, Fresno County, California. July 12, 1893.

13575. **Gold Quartz.** Washington Mine, 2½ miles northeast from Hornitos, Mariposa County, California. July 12, 1893.

13576. **Gold Quartz.** No. 9 Mine, 2½ miles northeast from Hornitos, Mariposa County, California. July 12, 1893.

13577. **Silver Ore** (argentiferous galena in garnet rock). Fresno Chief Mine, 1 mile east of the Star Mine, Mount Raymond, Fresno County, California. July 12, 1893.

13578. **Silver Ore** (argentiferous galena). McMurray Mine, Mount Raymond, Fresno County, California. July 12, 1893.

13579. **Soda**—Sulphate. Found in large quantities at White Plains, Churchill County, Nevada. Walter Schmidt. July 12, 1893.

13580. **Ulexite** (borate of lime). Found in large quantities at White Plains, Churchill County, Nevada. Walter Schmidt. July 12, 1893.

13581. **Gold Quartz.** Oro Fino Mine, Desert District, Churchill County, Nevada. Walter Schmidt. July 12, 1893.

13582. **Stibnite** (sulphide of antimony). Ambrose Mine, near Hollister, San Benito County, California. Joseph Bishop. July 12, 1893.

13583. **Gold Quartz.** Specimen from the contact of slate and granite, Gold Hill Mine, 2½ miles west from Nevada City, Nevada County, California. B. M. Shoecraft. July 15, 1893.

13584. **Gold Quartz.** Specimen from the contact of the slate and granite, Champion Mine, Deer Creek, 1 mile west from Nevada City, Nevada County, California. From the Company. July 15, 1893.

13585. **Gold Quartz.** North Banner Mine, Banner Hill, 3 miles east from Nevada City, on Little Deer Creek, Nevada County, California. From the Company. July 15, 1893.

13586. **Gold Quartz.** Fragment of a bowlder found in the channel of the Harmony Gravel Mine, Harmony Ridge, 1½ miles northeast from Nevada City, Nevada County, California. From the Company. July 15, 1893.

13587. **Wood,** supposed to be Mountain Mahogany, partially changed to lignite. Found at the depth of 400 feet in the channel of the Harmony Gravel Mine, Harmony Ridge, 1½ miles northeast from Nevada City, Nevada County, California. From the Company. July 15, 1893.

13588. **Tremolite** (silicate of magnesium, iron, calcium, and aluminum) with Calcite, Augite, and Garnets. Eight miles from Grass Valley, Nevada County, California. T. T. Thrasher. July 15, 1893.

13589. **Stalactite,** formed on a cactus root in a cave in Arizona. Wm. Kane. July 27, 1893.

13590. **Fragment of a Gun** which formerly belonged to H. M. S. "Bounty," seized by mutineers in 1790 and burned at Pitcairn Island. D. C. Stone. July 27, 1893.

13591. **Lazulite** (hydrous phosphate of aluminum and magnesium). Oceanside, San Diego County, California. Louis Gleichner. July 29, 1893.

First occurrence of this mineral in California observed and noted.

13592. **Fossil Crinoid Stems** of pentagonal shape, in Triassic limestone. From near the mouth of Rush Creek, Plumas County, California. Prof. J. S. Diller, U. S. Geological Survey. August 4, 1893.

13593. **Gold Quartz.** Caledonia Mine, Churntown District, Shasta County, California. F. H. Nichols. August 4, 1893.

13594. **Gold Quartz.** Malvina Mine, Cook estate, 1½ miles southwest from Coulterville, Mariposa County, California. August 7, 1893.

13595. **Gold Quartz.** Quail Mine, 8 miles east from Coulterville, Mariposa County, California. August 7, 1893.

13596. **Gold Quartz.** From a depth of 610 feet in the Red Cloud Mine, 10 miles northeast from Coulterville, Mariposa County, California. August 7, 1893.

13597. **Gold Quartz.** Louisa Mine, Coulterville, Mariposa County, California. August 7, 1893.

13598. **Gold Quartz.** Congo Mine, 4 miles east from Coulterville, Mariposa County, California. August 7, 1893.

13599. **Gold Quartz.** Potosi Mine, 2 miles southwest from Coulterville, Mariposa County, California. August 7, 1893.

13600. **Gold Quartz.** Cherokee Mine, 9 miles east from Coulterville, Mariposa County, California. August 7, 1893.

13601. **Gold Quartz.** Mary Harrison Mine, 2 miles southeast from Coulterville, Mariposa County, California. August 7, 1893.

13602. **Gold Quartz.** Dahlia Mine, 2 miles southeast from Coulterville, Mariposa County, California. August 7, 1893.

13603. **Gold Quartz.** Black Bart Mine, 11 miles east from Coulterville, Mariposa County, California. August 7, 1893.

This specimen is of a character that indicates near approach to a "pocket."

13604. **Gold Quartz.** Ruth Cleveland Mine, 2½ miles southeast from Coulterville, Mariposa County, California. August 7, 1893.

13605. **Gold Quartz.** Martin & Walling Mine, 10 miles southeast from Coulterville, Mariposa County, California. August 7, 1893.

13606. **Gold Quartz.** Conrad Mine, Big Oak Flat, Tuolumne County, California. August 7, 1893.

13607. **Gold Quartz.** Mount Jefferson Mine, Groveland, Tuolumne County, California. August 7, 1893.

13608. **Gold Quartz.** Kanaka Mine, 7 miles east from Groveland, Tuolumne County, California. August 7, 1893.

13609. **Gold Quartz.** Lumsden Mine, ¼ of a mile southeast from Priest's Hotel, Tuolumne County, California. August 7, 1893.

13610. **Aragonite** (carbonate of calcium). Big Bug Creek, 28 miles southeast from Prescott, Arizona. August 7, 1893.

13611. **Wall Rock**—Greenstone. Foot wall of the Starlight Mine, Mud Springs, El Dorado County, California. A. Blanc. August 7, 1893.

13612. **Basalt Column.** Chinese Camp, Tuolumne County, California. August 7, 1893.

13613. **Fossil Fruits.** Found at a depth of 100 feet in drifting for auriferous gravel. There are no trees now in the region where these are found, in Victoria, Australia. W. E. Burbidge. August 7, 1893.

13614. **Napalite** (a hydrocarbon). Oat Hill Mine, Napa County, California. A. E. Roberts. August 17, 1893.

13615. **Manganese Ore**—Pyrolusite. Half a mile south from the iron ore deposit on the ranch of P. B. Prefuno, San Luis Obispo County, California. August 23, 1893.

13616. **Hessite**—Telluride of Silver, with free gold. Bonanza Mine, Sonora, Tuolumne County, California. Wm. Harriman. August 23, 1893.

13617. **Hessite**—Telluride of Silver, with free gold. Bonanza Mine, Sonora, Tuolumne County, California. J. H. Neale. August 23, 1893.

13618. **Adamite** (hydrous arsenate of zinc). Laurium, Greece. Prof. P. G. Pouchet. August 25, 1893.

13619. **Mesotype** (hydrous silicate of aluminum, calcium, and sodium). Puy de Marman, Puy de Dome, Auvergne, France. Prof. P. G. Pouchet. August 25, 1893.

13620. **Quartz, Calcite, and Chlorite.** Golden Gate Mine, 1 mile south from Sonora, Tuolumne County, California. August 25, 1893.

13621. **Gabbro.** From a cropping on the road to Goodwin's Ranch, 2½ miles west from Chinese Camp, on the east slope of Table Mountain, Tuolumne County, California. August 25, 1893.

13622. **Gold Quartz.** Columbus Mine, Cherokee, Tuolumne County, California. August 29, 1893.

13623. **Gold Quartz.** Saratoga Mine, Saratoga Hill, Sonora, Tuolumne County, California. August 22, 1893.

13624. **Gold Quartz.** Buchanan Mine, 12 miles southeast from Sonora, Tuolumne County, California. August 29, 1893.

13625. **Gold Quartz.** Rawhide Mine, 2½ miles northwest from Jamestown, Tuolumne County, California. August 29, 1893.

13626. **Gold Quartz** with Arsenical Pyrite. Docile Mine, Kanaka Creek, 4 miles from Alleghany, Sierra County, California. August 29, 1893.

13627. **Marble.** Ledge near Freeman's Crossing, Bloomfield, Nevada County, California. August 29, 1893.

13628. **Dumortierite** (silicate of alumina). Clip, Yuma County, Arizona. Mrs. H. H. Day. August 29, 1893.

13629. **Calcite** (carbonate of calcium). From a vugg in the quartz vein of the Keltz Mine, 10 miles north from Soulsbyville, Tuolumne County, California. W. Sharwood. August 29, 1893.

13630. **Gold Quartz** with free gold. Keltz Mine, 10 miles north from Soulsbyville, Tuolumne County, California. W. Sharwood. August 29, 1893.

13631. **Gold Quartz.** North Fork Mine, 3½ miles northeast from Soulsbyville, Tuolumne County, California. Two specimens, one from top and one from bottom of shaft. August 29, 1893.

13632. **Gold Quartz.** Rawhide Mine No. 2, Rawhide Ranch, 5 miles west of Sonora, Tuolumne County, California. Col. A. Hayward. August 29, 1893.

13633. **Wall Rock**—Slate. Keltz Mine, Tuolumne County, California. August 29, 1893.

13634. **Quicksilver Ore**—Rich cinnabar. Black Hawk Mine, Carpojoro Creek, 16 miles north from San Simeon, San Luis Obispo County, California. September 7, 1893.

13635. **Chromic Iron.** Head of Carpojoro Creek, San Luis Obispo County, California. September 7, 1893.

13636. **Serpentine.** Fourteen miles northwest from San Simeon, San Luis Obispo County, California. September 7, 1893.

13637. **Limestone.** Rockland Lime Quarry, Mill Creek, Monterey County, California. September 7, 1893.

13638. **Calcite** (carbonate of calcium). Rockland Lime Quarry, Mill Creek, Monterey County, California. September 7, 1893.

13639. **Calcite** (carbonate of calcium) in six-sided crystals, an unusual form. Rockland Lime Quarry, Mill Creek, Monterey County, California. September 7, 1893.

13640. **Gold Quartz.** Pilot Peak, Plumas County, California. P. T. Turner. September 7, 1893.

13641. **Staurolite** (silicate of magnesium and iron). Polk County, Wisconsin. D. Thaamum. September 7, 1893.

13642. **Jasper**—Variegated. Occurs in quantity near the Oceanic Quicksilver Mine, 5 miles east of Cambria, San Luis Obispo County, California. September 7, 1893.

13643. **Antimony Ore**—Stibnite. South Fork of San Simeon Creek, near the summit of the Santa Lucia Range, San Luis Obispo County, California. September 7, 1893.

13644. **Quicksilver Ore**—Cinnabar. Santa Cruz Mine, 1 mile west of Adelaida, San Luis Obispo County, California. September 7, 1893.

13645. **Auriferous Vein Matter.** Florence Mine, 4,000 feet east of the Mother Lode, near the Morse Ranch, 5 miles west of Sonora, Tuolumne County, California. September 7, 1893.

13646. **Gold Quartz.** Conlin Mine, 2½ miles southeast of Columbia, Tuolumne County, California. September 7, 1893.

13647. **Gold Quartz.** Sheridan Mine, ½ mile below Robinson's Ferry, Calaveras County, California. September 7, 1893.

13648. **Gold Quartz.** Eclipse Mine, Smith's Flat, 1½ miles northwest from Angels, Calaveras County, California. September 18, 1893.

13649. **Gold Quartz and Auriferous Calcite.** Tulloch Mine, 1½ miles southeast from Angels, Calaveras County, California. September 18, 1893.

13650. **Gold Quartz.** Hardy Mine, ¾ of a mile south from Angels, Calaveras County, California. September 18, 1893.

13651. **Auriferous Schistose Rock.** Vein matter of the Hardy Mine, ¾ of a mile south from Angels, Calaveras County, California. September 18, 1893.

13652. **Auriferous Vein Matter.** Gold Cliff Mine, Angels, Calaveras County, California. September 18, 1893.

13653. **Gold Quartz and Auriferous Talcose Schist.** Matson Mine, ½ mile southeast from Angels, Calaveras County, California. September 18, 1893.

13654. **Marble.** Colton, San Bernardino County, California. A. L. Seager. September 18, 1893.

13655. **Marble.** Carrara Quarry, 4 miles below Volcano, Amador County, California. A. L. Seager. September 18, 1893.

13656. **Marble.** From a ledge 1¼ miles east from Porterville, Tulare County, California. A. L. Seager. September 18, 1893.

13657. **Marble.** Grant's Quarry, Columbia, Tuolumne County, California. A. L. Seager. September 18, 1893.

13658. **Albite** (silicate of sodium and aluminum) with Carlsbad Twins. Jamestown, Tuolumne County, California. E. F. Sheldon. September 18, 1893.

13659. **Gold in Barite.** Muletos Mine, Sonora, Mexico. Wm. M. Lent. September 19, 1893. (Formerly No. 223.)

13660. **Chalcedony.** Nipomo Ranch, San Luis Obispo County, California. September 19, 1893.

13661. **Limestone**—Ferruginous. Six miles east from Los Burros, Monterey County, California. September 19, 1893.

13662. **Clay**—Plastic. Arroyo Grande, San Luis Obispo County, California. September 19, 1893.

13663. **Gold Quartz** rich in free gold. Hudson Bay Mine, Grass Valley, Nevada County, California. Alf. Tregidgo. September 19, 1893.

13664. **Gold Quartz.** Cayot Mine, Fall River (14 miles northeast from Forbestown), Plumas County, California. September 25, 1893.

13665. **Wall Rock**—Coarse granite. Inclosing rock of quartz in Cayot Mine, Plumas County, California. September 25, 1893.

13666. **Gold Quartz.** Fall River Consolidated Mine, Fall River, Plumas County, California. September 25, 1893.

13667. **Wall Rock**—Granitic. Inclosing rock of No. 1 vein of the Fall River Consolidated Mine, Plumas County, California. September 25, 1893.

13668. **Country Rock**—Coarse granite. Fall River Mine, Plumas County, California. September 25, 1893.

13669. **Millerite** (sulphide of nickel) on copper ore. Pocahontas Mine, Indian Valley, Plumas County, California. A. M. Gee. September 30, 1893.

13670. **Cuprite** (red oxide of copper) with Native Silver and Malachite. Pocahontas Mine, Indian Valley, Plumas County, California. A. M. Gee. September 30, 1893.

13671. **Copper Ore**—Malachite. Pocahontas Mine, Indian Valley, Plumas County, California. A. M. Gee. September 30, 1893.

13672. **Alunogen** (hydrous sulphate of alumina). Paso Robles, San Luis Obispo County, California. F. L. White. September 30, 1893.

13673. **Marble** (dolomitic). Quarry of the Inyo Marble Co., Keeler, Inyo County, California. A. L. Seager. October 4, 1893.

13674. **Marble**—Tennessee. A. L. Seager. October 4, 1893.

13675. **"Verde Antique."** Kimball Quarry. A. L. Seager. October 4, 1893.

13676. **Gold Quartz** rich in free gold. Red Jacket Mine, Columbia District, Placer County, California. Wm. Recknagel. October 4, 1893.

13677. **Asbestus** (amphibole and pyroxene). Morning Star Mine, Iowa Hill, Placer County, California. J. H. Neff. October 4, 1893.

13678. **Copper Ore**—Cuprite and native copper, with native silver and traces of gold. Pocahontas Mine, Mountain Meadows, near Lassen County line, Plumas County, California. A. M. Gee. October 4, 1893.

13679. **Copper Ore**—Malachite and Chalcosite. Summit Mine, Light's Cañon, Indian Valley, Plumas County, California. October 4, 1893.

13680. **Iron Ore**—Micaceous Hematite, with traces of copper. Mountain Meadows, Lassen County, California. Four-foot ledge. October 4, 1893.

13681. **Iron Ore**—Limonite of good quality. Moonlight Valley, near Light's Cañon, Plumas County, California. October 4, 1893.

13682. **Wall Rock**—Hanging wall. Pocahontas Copper Mine, No. 13,678. October 4, 1893.

13683. **Wall Rock**—Foot wall. Pocahontas Copper Mine, No. 13,678. October 4, 1893.

13684. **Aragonite** (carbonate of calcium), which forms natural bridges over Coyote Creek, near Vallecitos, Calaveras County, California. October 6, 1893.

13685. **Building Stone**—"Lava," indurated volcanic ash, or mud. Angels, Calaveras County, California. October 6, 1893.

13686. **Gold Quartz.** Carson Creek Mine, 5 miles south from Angels, Calaveras County, California. October 6, 1893.

13687. **Gold Quartz.** Mayflower Mine, 1½ miles west from Murphys, Calaveras County, California. October 6, 1893.

13688. **Gold Quartz** showing free gold. Louisa Mine, 3 miles west from Murphys, Calaveras County, California. October 6, 1893.

13689. **Gold Quartz.** Utica Mine, Angels, Calaveras County, California. October 6, 1893.

13690. **Mercury**—Native. In ore from the 600-foot level, Santa Maria shaft, New Almaden Mine, Santa Clara County, California. Chas. E. Derby. October 9, 1893.

13691. **Gold Quartz** showing free gold. Birney Mine, 1½ miles north of east from Angels, Calaveras County, California. October 9, 1893.

13692. **Gold Quartz.** Suffolk Mine, east side of Carson Hill, Angels, Calaveras County, California. October 9, 1893.

13693. **Gold Quartz.** Mike Brown's Mine, next south from the Utica Sickles Mine, Angels, Calaveras County, California. October 9, 1893.

13694. **Gold Quartz.** Lewis Mine, ¾ of a mile south from Vallecitos, Calaveras County, California. October 9, 1893.

13695. **Gold Quartz.** Canape Mine, 1 mile west from Carson, Calaveras County, California. October 9, 1893.

13696. **Iron Ore**—Magnetite. Iron Rock Mine, Carson Hill, near the town of Carson, Calaveras County, California. October 9, 1893.

13697. **Volcanic Ash,** overlying the gravel channel of the Uptograph Mine, Douglas Flat, Calaveras County, California. October 9, 1893.

13698. **Flint and Chert.** From the chalk beds, England. October 9, 1893.

13699. **Hydro-Magnesite** (carbonate of magnesia), with traces of lime and silica. Santa Barbara, California. J. G. Moraga. October 9, 1893.

13700. **Silica.** Santa Maria, Santa Barbara County, California. Levi Hunt. October 9, 1893.

13701. **Pyrargyrite** (sulph-antimonide of silver)—"Ruby Silver." 550-foot level of the Union Mine, Austin, Lander County, Nevada. Extracted in 1892. Alexander Dron, Jr. October 9, 1893.

13702. **Aragonite Crystals** (carbonate of calcium). Cave near Murphys, Calaveras County, California. W. J. Mercer. October 18, 1893.

13703. **Gold Quartz** showing free gold. May Lundy Mine, Homer District, Mono County, California. Extracted in 1881. Hon. Joseph Wasson. October 18, 1893.

13704. **Gold Quartz.** Cook Mine, 1½ miles northeast from Angels, Calaveras County, California. October 23, 1893.

13705. **Auriferous Vein Matter.** Croppings of Cook Mine, 1½ miles northeast from Angels, Calaveras County, California. October 23, 1893.

13706. **Gold Quartz.** Everlasting Mine, ½ mile south from San Andreas, Calaveras County, California. October 23, 1893.

13707. **Gold Quartz.** Fellowcraft Mine, ¼ of a mile northeast from San Andreas, Calaveras County, California. October 23, 1893.

13708. **Gold Quartz.** Kentucky Home Mine, 2 miles south from San Andreas, Calaveras County, California. October 23, 1893.

13709. **Gold Quartz.** Illinois Mine, 6 miles south from San Andreas, Calaveras County, California. October 23, 1893.

13710. **Auriferous Vein Matter.** Altered dike in the Edna Mine, 3 miles north from San Andreas, Calaveras County, California. October 23, 1893.

13711. **Melanterite** (hydrous sulphate of iron). White Mountains, Mono County, California. M. Griswold. October 23, 1893.

13712. **Gold Quartz.** Bonanza Mine, Sonora, Tuolumne County, California. October 23, 1893.

13713. **Slate.** Inclosing rock of a "pocket" that yielded $97,000. Bonanza Mine, Sonora, Tuolumne County, California. October 23, 1893.

13714. **Dike.** From near a "pocket" that yielded $300,000. Bonanza Mine, Sonora, Tuolumne County, California. October 23, 1893.

13715. **Gold Quartz.** Carlotta Mine, 9 miles east from Sonora, Tuolumne County, California. October 23, 1893.

13716. **Barite** (sulphate of barium). Fifteen miles below Hay Fork Post Office, on Hay Fork of Trinity River, Trinity County, California. October 23, 1893.

13717. **Building Stone**—Trachytic Tufa. Bed 30 miles west of Red Bluff, Tehama County, California. Locally used for building purposes. October 23, 1893.

13718. **Gold Quartz.** Shenandoah Mine, 10 miles northeast from San Andreas, Calaveras County, California. October 28, 1893.

13719. **Gold Quartz.** Collier Mine, 5 miles east from Murphys, Calaveras County, California. October 28, 1893.

13720. **Gold Quartz.** Buckhorn Mine, 1½ miles west of Murphys, Calaveras County, California. October 28, 1893.

13721. **Wall Rock**—Altered Dike. Buckhorn Mine, 1½ miles west of Murphys, Calaveras County, California. October 28, 1893.

13722. **Country Rock**—Amphibole. Shenandoah Mine, 10 miles northeast from San Andreas, Calaveras County, California. October 28, 1893.

13723. **Garnets** in dike rock. Shenandoah Mine, Calaveras County, California. October 28, 1893.

13724. **Porphyritic Diorite.** Near Indian Creek, on the road between Sheep Ranch and Murphys, Calaveras County, California. October 28, 1893.

13725. **Obsidian,** var. **Perlite.** Four miles east from Parkfield, Monterey County, California. October 28, 1893.

13726. **Granite,** with Garnets. Nacimiento River, Monterey County, California. October 28, 1893.

13727. **Manganese Ore**—Pyrolusite and Psilomelane. Cleveland Mine, 20 miles east from Tres Pinos, San Benito County, California. October 28, 1893.

13728. **Antimony Ore**—Stibnite. Shriver Mine, San Benito County, California. October 28, 1893.

13729. **Fusus tenuissimus.** Cretaceous fossil. Point Loma, San Diego County, California. November 1, 1893.

13730. **Surcula monilifera.** Eocene fossil. Marysville Buttes, Sutter County, California. November 1, 1893.

13731. **Drillia ullreyana.** Eocene fossil. Marysville Buttes, Sutter County, California. November 1, 1893.

13732. **Pleurotoma discrepans.** Eocene fossil. Marysville Buttes, Sutter County, California. November 1, 1893.

13733. **Surcula crenatospira.** Eocene fossil. Marysville Buttes, Sutter County, California. November 1, 1893.

13734. **Cucullæa bowersiana.** Cretaceous fossil. Santa Ana Mountains, Orange County, California. November 1, 1893.

13735. **Mytilus dichotomus.** Cretaceous fossil. Coalinga, Fresno County, California. November 1, 1893.

13736. **Oliverato californica.** Eocene fossil. Marysville Buttes, Sutter County, California. November 1, 1893.

13737. **Potamides carbonicola.** Cretaceous fossil. Coalinga, Fresno County, California. November 1, 1893.

13738. **Cancellaria irelaniana.** Eocene fossil. Marysville Buttes, Sutter County, California. November 1, 1893.

13739. **Potamides davisiana.** Eocene fossil. Marysville Buttes, Sutter County, California. November 1, 1893.

13740. **Mitra simplicissima.** Cretaceous fossil. Rose Cañon, San Diego County, California. November 1, 1893.

13741. **Cylindrites erratica.** Cretaceous fossil. San Diego County, California. November 1, 1893.

13742. **Stormatia intermedia.** Cretaceous fossil. Point Loma, San Diego County, California. November 1, 1893.

13743. **Magerlia dubitanda.** Cretaceous fossil. Point Loma, San Diego County, California. November 1, 1893.

13744. **Waldhimia imbricata.** Cretaceous fossil. La Jolla, San Diego County, California. November 1, 1893.

13745. **Surcula inconstans.** Eocene fossil. Marysville Buttes, Sutter County, California. November 1, 1893.

13746. **Calliostoma lucerna.** Cretaceous fossil. Point Loma, San Diego County, California. November 1, 1893.

13747. **Tomatella normalis.** Cretaceous fossil. Point Loma, San Diego County, California. November 1, 1893.

13748. **Crasatella lomana.** Cretaceous fossil. Point Loma, San Diego County, California. November 1, 1893.

13749. **Astarte semidentata.** Cretaceous fossil. Rose Cañon, San Diego County, California. November 1, 1893.

13750. **Pleurotoma decipiens.** Cretaceous fossil. San Diego County, California. November 1, 1893.

13751. **Aucella piochii.** Cretaceous fossil. Toro Creek, Santa Lucia Mountains, 7 miles east from Cayucos, San Luis Obispo County, California. November 1, 1893.

13752. **Corbula triangulata.** Cretaceous fossil. Point Loma, San Diego County, California. November 1, 1893.

13753. **Mangilia suturalis.** Eocene fossil. Marysville Buttes, Sutter County, California. November 1, 1893.

13754. **Pecten discus.** Con. Tertiary fossil. Kern County, California. November 1, 1893.

13755. **Siphonaria capuloides.** Cretaceous fossil. San Diego, California. November 1, 1893.

13756. **Bulla assimilata.** Cretaceous fossil. San Diego, California. November 1, 1893.

13757. **Aucella mosquensis.** Cretaceous fossil. Five miles west from Santa Margarita, in the Santa Lucia Mountains, San Luis Obispo County, California. November 1, 1893.

13758. **Spondylus estrellanus.** Miocene fossil. La Panza, San Luis Obispo County, California. November 1, 1893.

13759. **Silicious Concretions.** Nut Mountain, Roop County, Nevada. Ed. Schefflin. November 1, 1893.

13760. **Limestone.** Cienega Quarry, 6 miles southwest from Tres Pinos, San Benito County, California. November 1, 1893.

Of good quality, and occurs in large quantity, makes good lime, and might be utilized as a building stone.

13761. **Gypsum** (sulphate of calcium). Quarry of the Owen Gypsum Company, Santa Barbara Cañon, Santa Barbara County, California. November 1, 1893.

13762. **Jasper.** Stone's Creek, 20 miles east from San Miguel, Monterey County, California. November 1, 1893.

13763. **Copper Ore.** San Emidio Cañon, Kern County, California. November 1, 1893.

13764. **Silica,** with a little oxide of iron. La Panza, San Luis Obispo County, California. November 1, 1893.

13765. **Porphyry** (granite porphyry). Near El Dorado, El Dorado County, California. November 1, 1893.

13766. **Chromic Iron.** Five miles south from Shingle Springs, El Dorado County, California. November 1, 1893.

13767. **Silver Ore**—with gold. Fairview Mine, Frazer Mountain, Ventura County, California. J. Haylock. November 1, 1893.

13768. **Gold Quartz.** Castac Mine, Snowy District, on Piru River, Ventura County, California. A. Frazer. November 1, 1893.

13769. **Gold Quartz.** Frazer Mine, Frazer Mountain, Ventura County, California. A. Frazer. November 1, 1893.

13770. **Gold Quartz.** Big Cañon Mine, 4 miles south from Shingle Springs, El Dorado County, California. November 1, 1893.

13771. **Gold Quartz.** Pyramid Mine, 4 miles north from Shingle Springs, El Dorado County, California. November 1, 1893.

13772. **Vein Matter.** Pyramid Mine, 4 miles north from Shingle Springs, El Dorado County, California. It comes in from time to time and replaces the quartz. November 1, 1893.

13773. **Gold in Talc.** From a deposit over 100 feet wide. Kelsey, El Dorado County, California. W. A. McNaughten. November 3, 1893.

13774. **Stalactites.** From Mercer's Cave, at Murphys, Calaveras County, California. W. J. Mercer. November 3, 1893.

13775. **Quartz Crystals,** doubly terminated, in matrix of cherty limestone. Herkimer, New York. J. L. Lockwood. November 3, 1893.

13776. **Iron Ore**—Magnetite. Seven miles southwest from Tres Pinos, San Benito County, California. November 3, 1893.

13777. **Serpentine.** From a ledge on J. D. Cook's ranch, 6 miles east from Valley Springs, Calaveras County, California. J. D. Cook. November 3, 1893.

13778. **Gold Quartz.** Eureka Mine, 1 mile north from West Point, Calaveras County, California. November 3, 1893.

13779. **Gold Quartz.** Moser Mine, Spring Gulch, 1½ miles southeast from Mokelumne Hill, Calaveras County, California. November 3, 1893.

13780. **Gold Quartz.** Blazing Star Mine, 1½ miles east from West Point, Calaveras County, California. November 3, 1893.

13781. **Auriferous Pyrite.** Teirakoff Mine, on the north side of the South Fork of the Mokelumne River, 2½ miles north from West Point, Calaveras County, California. November 3, 1893.

13782. **Gold Quartz.** Lone Star Mine, 2½ miles west from West Point, Calaveras County, California. November 3, 1893.

13783. **Trachytic Tufa.** Licking Fork of the Calaveras River, 3 miles southeast from West Point, Calaveras County, California. November 3, 1893.

13784. **Granite.** Lone Star Mine, 2½ miles west from West Point, Calaveras County, California. November 3, 1893.

13785. **Sandstone**—Micaceous; resembling Itacolumite. Tunnel Ridge Channel, near Mokelumne Hill, Calaveras County, California. November 3, 1893.

13786. **Gold Quartz.** Belle Fontaine Mine, Deer Creek, Nevada County, California. November 16, 1893.

13787. **Wall Rock.** Forms both walls of the Belle Fontaine Mine, Deer Creek, Nevada County, California. November 16, 1893.

13788. **Gold Quartz.** Spanish Mine, 2 miles west of Nevada City, Nevada County, California. November 16, 1893.

13789. **Gold Quartz.** Cedar Mine, Wolf Creek, Nickerson Ranch, 12 miles south of Grass Valley, Nevada County, California. November 16, 1893.

13790. **Gold Quartz.** From the 1250-foot level of the Providence Mine, Nevada City, Nevada County, California. November 16, 1893.

13791. **Wall Rock.** From the "Granite" vein of the Providence Mine, Nevada City, Nevada County, California. November 16, 1893.

13792. **Gold Quartz.** Omaha Mine, Wolf Creek, Grass Valley, Nevada County, California. November 16, 1893.

13793. **Wall Rock**—Syenite. Omaha Mine, Grass Valley, Nevada County, California. November 16, 1893.

13794. **Gold Quartz.** Virginia Mine, 4 miles southeast from Coulterville, Mariposa County, California. November 16, 1893.

13795. **Gold Quartz.** Gentle Annie Mine, Poverty Point, 3 miles from Placerville, El Dorado County, California. November 16, 1893.

13796. **Gold Quartz.** Bonesett Mine, Weber Creek, 6 miles from Shingle Springs, El Dorado County, California. November 16, 1893.

13797. **Wall Rock.** Bonesett Mine, Weber Creek, 6 miles from Shingle Springs, El Dorado County, California. November 16, 1893.

13798. **Gold Quartz.** Equator Mine, Mathenas Creek, 2½ miles from El Dorado, El Dorado County, California. November 16, 1893.

13799. **Gold Quartz.** Church Mine, Mathenas Creek, 3½ miles from El Dorado, El Dorado County, California. November 16, 1893.

13800. **Gold Quartz.** Osborn Hill Mine, Grass Valley, Nevada County, California. Col. J. E. Doolittle. November 16, 1893.

Assay S. M. B. $45 per ton.

13801. **Halite** (chloride of sodium). Peru. H. P. Thayer. November 16, 1893.

13802. **Roscoelite** (vanadium mica) in quartz. Stuckslager Mine, Coloma, El Dorado County, California. H. Turnbow. November 27, 1893.

13803. **Feldspar** — Orthoclase, with Tourmaline. From a vein or ledge 30 feet wide. Buck's Bar, Cosumnes River, El Dorado County, California. November 27, 1893.

13804. **Lava.** Capping of auriferous gravel channel at Volcano, Amador County, California. November 27, 1893.

13805. **Conglomerate**—fine grained. Capping of an auriferous gravel channel at Sheep Ranch, Calaveras County, California. November 27, 1893.

Assays about $4 per ton.

13806. **Conglomerate**—Tufaceous. Capping of an auriferous gravel channel at Sheep Ranch, Calaveras County, California. November 27, 1893.

13807. **Conglomerate**—Volcanic. Capping of an auriferous gravel channel at Sheep Ranch, Calaveras County, California. November 27, 1893.

13808. **Gold Quartz.** South Extension of the Zeile Mine, Jackson, Amador County, California. November 27, 1893.

13809. **Gold Quartz.** 1600-foot level of the Kennedy Mine, Jackson, Amador County, California. November 27, 1893.

13810. **Gold Quartz.** Zeile Mine, Jackson, Amador County, California. November 27, 1893.

13811. **Gold Quartz.** Eureka Mine, Sutter Creek, Amador County, California. November 27, 1893.

13812. **Gold Quartz.** Middle Bar Mine, 4 miles southeast from Jackson, Amador County, California. November 27, 1893.

13813. **Gold Quartz.** Kelley Mine, 3 miles southeast from Jackson, Amador County, California. November 27, 1893.

13814. **Gold Quartz.** Robinson Mine, 1½ miles southeast from Middle Bar, Calaveras County, California. November 27, 1893.

13815. **Gold Quartz.** Quaker City Mine, Mokelumne Hill, Calaveras County, California. November 27, 1893.

The vein in this mine is 40 feet wide, and filled with rounded bowlders of quartz.

13816. **Silicified Wood.** Tunnel Ridge Channel, 1½ miles east from Mokelumne Hill, Calaveras County, California. November 27, 1893.

13817. **Manganese Ore**—Pyrolusite. Containing 60 per cent metallic manganese. Hendricks Mine, San Benito County, California. S. Hendricks, per Melville Atwood. November 27, 1893.

13818. **Auriferous Vein Matter,** with Copper. Gray Eagle Mine, Peavine District, Washoe County, Nevada. W. F. Mills, per Melville Atwood. November 27, 1893.

13819. **Carbonaceous Matter,** from the hydraulic pit where diamonds have been found at Volcano, Amador County, California. November 27, 1893.

13820. **Clay,** from the hydraulic pit where diamonds have been found at Volcano, Amador County, California. November 27, 1893.

13821. **Auriferous Vein Matter.** Kennedy Mine, Jackson, Amador County, California. December 9, 1893.

13822. **Slate**—Contorted. Foot wall side of vein. Keystone Mine, Amador City, Amador County, California. December 9, 1893.

13823. **Gold Quartz.** Bay State Mine, 4 miles northwest from Plymouth, Amador County, California. December 9, 1893.

13824. **Gold Quartz.** From a "pay shoot" that yielded $10,000,000. Plymouth Con. Mine, Plymouth, Amador County, California. December 9, 1893.

13825. **Manganese Ore**—Pyrolusite. Elk Creek, Glenn County, California. Winchester Riffe. December 9, 1893.

13826. **Model of Gold Nugget** found on Rabbit Creek, Plumas County, California, October 12, 1891. Value, $614. Dr. A. F. Merriman. December 26, 1893.

13827. **Antimony Ore**—Stibnite. Cambria, San Luis Obispo County, California. January 6, 1894.

13828. **Marble.** Foot of Deer Peak, Preciado Gulch, on the Calaveras River, 5 miles west from San Andreas, Calaveras County, California. E. J. Caldwell, Valley Springs, owner. January 6, 1894.

13829. **Limestone**—Hydraulic. "Cement Rock" of good quality. Antioch, Contra Costa County, California. Mr. Flaherty. January 6, 1894.

13830. **Hematite** (sesquioxide of iron). Peculiar variety, known as "Fibrous Hematite." January 6, 1894.

13831. **Manganese Ore**—"Bog Manganese." Elk, Mendocino County, California. A. L. Field. January 6, 1894.

13832. **Copper**—Native, on Magnetite. Found at a depth of 200 feet from the surface in drifting for auriferous gravel near Todd, Placer County, California. John Schippmann. January 6, 1894.

13833. **Aragonite** (carbonate of calcium). Eel River, near Fort Bragg, Mendocino County, California. January 6, 1894.

13834. **Nitro-Calcite** (nitrate of calcium). Arizona. John Bryant. January 6, 1894.

13835. **Barite** (sulphate of barium), with Argentite. Frisco, Beaver County, Utah. January 6, 1894.

13836. **Gold Quartz.** Washington Mine, Indian Creek, between Sheep Ranch and Murphys, Calaveras County, California. January 6, 1894.

Said to assay $80 per ton.

13837. **Quicksilver Ore**—Cinnabar with Silicate of Chromium. Washington. W. P. Burdett. January 9, 1894.

13838. **Silver Ore,** with carbonate of copper and lead. Bully Boy Mine, Marysvale, Sevier County, Utah. January 9, 1894.

Assays 380 ounces per ton.

13839. **Silver Ore**—Argentite and Galena, with Gold. Miner's Delight Mine, Ophir, Utah. January 9, 1894.

13840. **Silver Ore**—Argentiferous Galena. Utah Mine, Deep Creek, Utah. January 9, 1894.

Assays 493 ounces silver and $8 gold per ton.

13841. **Copper Ore**—Tetrahedrite and Carbonate of Copper. Brock Creek Mine, Uintah County, Utah. January 9, 1894.

13842. **Iron Ore**—Magnetite after Hematite. Utah. January 9, 1894.

13843. **Coal.** From a vein 34 feet thick at Castle, Emery County, Utah. January 9, 1894.

13844. **Bituminous Shale.** Niles' Mill Cañon, Emery County, Utah. January 9, 1894.

13845. **Chalcopyrite** (sulphide of copper and iron). Ookiep Mine, Namaqualand, South Africa. January 9, 1894.

13846. **Coal.** Cyphergat Mine, Burghusdorp, South Africa. January 9, 1894.

13847. **Lignite.** From the hills on the west side of Round Valley, Mendocino County, California. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	8.00
Volatile hydrocarbons	48.00
Fixed carbon	40.75
Ash	3.25
Total	100.00

13848. **Lignite.** From a vein 3 feet thick at Poison Camp, Trinity County, California. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	9.50
Volatile hydrocarbons	41.00
Fixed carbon	48.40
Ash	1.10
Total	100.00

13849. **Lignite.** Van Dusen River, 2 miles east from Hydesville, Humboldt County, California. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	8.75
Volatile hydrocarbons	51.50
Fixed carbon	35.50
Ash	4.25
Total	100.00

13850. **Lignite.** From the lower bed in Hay Fork Valley, Trinity County, California. Thickness, 6 feet. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	9.10
Volatile hydrocarbons	34.25
Fixed carbon	19.15
Ash	37.50
Total	100.00

13851. **Lignite.** Hyampom Valley, Trinity County, California. From shaft 2 miles above the Post Office, on the edge of the North Fork of Trinity River. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	12.25
Volatile hydrocarbons	42.55
Fixed carbon	41.60
Ash	3.60
Total	100.00

13852. **Lignite.** Crogan Gulch, Maple Creek, Humboldt County, California. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	14.00
Volatile hydrocarbons	49.80
Fixed carbon	32.95
Ash	3.25
Total	100.00

13853. **Lignite.** Buck Mountain Creek, near Garberville, Humboldt County, California. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	7.60
Volatile hydrocarbons	46.90
Fixed carbon	32.25
Ash	3.25
Total	90.00

13854. **Lignite.** Top streak 5½ feet thick. Eel River, Mendocino County, California. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	2.00
Volatile hydrocarbons	15.50
Fixed carbon	25.25
Ash	57.25
Total	100.00

13855. **Lignite.** Hyampom Creek, west side of Trinity River, opposite shaft from which sample No. 13851 was taken. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	10.50
Volatile hydrocarbons	38.65
Fixed carbon	24.15
Ash	26.70
Total	100.00

13856. **Lignite.** Vein 3 feet thick, in gulch above Mrs. Ray's house, Garberville, Humboldt County, California. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	10.10
Volatile hydrocarbons	51.80
Fixed carbon	31.00
Ash	7.10
Total	100.00

13857. **Lignite.** Mill Creek, near Cole's Station, Mendocino County, California. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	10.25
Volatile hydrocarbons	44.75
Fixed carbon	41.00
Ash	4.00
Total	100.00

13858. **Lignite.** Vein 13 feet thick. C. P. Mine, Stone Cañon, Monterey County, California. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	5.25
Volatile hydrocarbons	39.75
Fixed carbon	49.25
Ash	5.75
Total	100.00

13859. **Lignite.** Upper vein, Drabble Mine, Priest Valley, Fresno County, California. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	11.25
Volatile hydrocarbons	38.25
Fixed carbon	38.50
Ash	12.00
Total	100.00

13860. **Portion of the Root of a living Oak Tree,** growing in a clay soil; changed into an imperfect "brown coal," or lignite. Tehama County, California. January 9, 1894.

13861. **Lignite** with Resin. Upper vein of the croppings in Hay Fork Valley, Trinity County, California. January 9, 1894.

ANALYSIS S. M. B. (Mathyas).

Water	10.10
Volatile hydrocarbons	51.80
Fixed carbon	31.00
Ash	7.10
Total	100.00

13862. **Retinalite** (a variety of Serpentine). From above the coal on Salt Creek Divide, Eel River, Mendocino County, California. January 9, 1894.

13863. **Clay.** From a bed 4 to 6 feet thick, overlying the iron ore of the Ione Coal and Iron Company, 90 feet above the coal. Ione, Amador County, California. January 9, 1894.

13864. **Clay.** From a bed 4 feet thick, 120 feet above the coal. Ione Coal and Iron Company, Ione, Amador County, California. January 9, 1894.

13865. **Gold Quartz.** Empire Mine, Gold Valley District, Sierra County, California. Geo. D. Gray. January 9, 1894.

13866. **Chlorite Schist,** with vein of Chlorite. Volcano, Amador County, California. January 9, 1894.

13867. **Plicatula marginata.** Fossil shell. Pennsburg, Virginia. J. Z. Davis. January 9, 1894.

13868. **Gold Quartz.** Gold Link Mine, Okanogan County, Washington. January 17, 1894.
Said to assay $1,300 gold and 47 ounces silver per ton.

13869. **Gold Quartz,** with Silver. Salmon Creek Mine, Okanogan County, Washington. January 17, 1894.

13870. **Gold Quartz,** with Silver. Jessie Mine, Okanogan County, Washington. January 17, 1894.

13871. **Silver Ore.** Fourth of July Mine, Ruby District, Okanogan County, Washington. January 17, 1894.
Said to assay 653 ounces per ton.

13872. **Silver Ore.** First Thought Mine, Okanogan County, Washington. January 17, 1894.
Said to assay 250 ounces per ton.

13873. **Silver Ore** (argentiferous galena). Dead Medium Mine, Colville District, Stevens County, Washington. January 17, 1894.

13874. **Silver Ore.** Nounan Mine, Stevens County, Washington. January 17, 1894.

13875. **Silver Ore,** with Gold. Florida Mine, Lida Valley, Esmeralda County, Nevada. Leonard Martin. January 17, 1894.
Specimen from above water level. Assay by the Selby Smelting Works, silver 1,832 ounces, gold 7.8 ounces, per ton.

13876. **Silver Ore**, with Gold. Florida Mine, Lida Valley, Esmeralda County, Nevada. Leonard Martin. January 17, 1894.

Specimen from below the water level. Assay, 879 ounces silver, 1.58 ounces gold per ton, and 11 per cent zinc.

13877. **Steatite**—French Chalk, translucent. From a quarry at the water's edge, on Santa Catalina Island, Los Angeles County, California. Smith & Young. January 26, 1894.

13878. **Gold Quartz.** Good Hope Mine, 10 miles east from Wheatland, Yuba County, California. F. McMillan. January 26, 1894.

13879. **Hydromagnesite** (hydrous carbonate of magnesia)—Crystallized, on Serpentine. Fort Point, San Francisco, California. D. Thaamum. January 26, 1894.

13880. **Lead Ore**—Sulphide and Carbonate. Hercules Mine, Ruthburg, Idaho. Frank Adams. January 26, 1894.

13881. **Copper Ore**—Malachite and Bornite. White Mountain Mine, Seven Devils District, Idaho. Frank Adams. January 26, 1894.

13882. **Copper Ore**—Malachite and Chalcocite. Red Wing Mine, Seven Devils District, Idaho. Frank Adams. January 26, 1894.

13883. **Copper Ore**—Chalcopyrite and Bornite. Chieftain Mine, Seven Devils District, Idaho. Frank Adams. January 26, 1894.

13884. **Asphaltum.** From the mine of the Standard Asphalt Company, Sec. 27, T. 30 S., R. 22 E., M. D. M., near Asphalto, Kern County, California. February 5, 1894.

13885. **Gypsum**—Selenite. Vernalis, San Joaquin County, California. C. J. Duff. February 5, 1894.

13886. **Gold Quartz,** with Chalcopyrite, Covellite, Pyrite, and Sphalerite. Spenceville, Nevada County, California. C. C. Bitner. February 5, 1894.

13887. **Gold** in Sphalerite and Galena. Bald Butte Mine, near Marysville, Montana. T. Simcox. February 5, 1894.

13888. **Ouvarovite**—Chrome Garnet, on Calcite. Brompton, Canada. F. Bacheller. February 5, 1894.

13889. **Molybdenite** (sulphide of molybdenum). In ore from the Chieftain Copper Mine, Seven Devils District, Idaho. Frank Adams. February 5, 1894.

13890. **Felsite**—Silicious. From a dyke between the granite and the slate and gneiss formation in the Sebastopol District, Mariposa County, California. February 5, 1894.

13891. **Jasper,** with Pyrite. Roseville, Placer County, California. Geo. L. Brown. February 5, 1894.

13892. **Copper Ore**—Chalcocite and Chalcopyrite. Chualar Gulch, Monterey County, California. J. Joerson. February 5, 1894.

13893. **Manganese Ore**—Pyrolusite of good quality. Potrero, San Francisco. Geo. Smith. February 12, 1894.

Said to be in large quantity.

13894. **Indian Spear-head and Arrowpoint.** Oregon. L. Greenberg. February 12, 1894.

13895. **Gold Quartz.** Cousin Jack Mine, Grizzly Flat, El Dorado County, California. T. A. Murray. February 12, 1894.

13896. **Diorite Porphyrite.** From near Amador City, Amador County, California. February 12, 1894.

13897. **Diatomaceous Earth.** Marine Diatoms. From near San José, Santa Clara County, California. M. H. Hyland. February 12, 1894.

13898. **Auriferous Gravel.** "Blue Lead," Bangor, Butte County, California. February 12, 1894.

13899. **Stilbite** (hydrous silicate of aluminum and calcium). Frankford, Philadelphia, Pennsylvania. Theo. D. Rand. February 16, 1894.

13900. **Feldspar**—Moonstone (oligoclase, albite, and orthoclase). Black Horse, Media, Pennsylvania. Theo. D. Rand. February 16, 1894.

13901. **Autunite** (phosphate of uranium and calcium). Fairmount, Philadelphia, Pennsylvania. Theo. D. Rand. February 16, 1894.

13902. **Serpentine.** Radnor, Pennsylvania. Theo. D. Rand. February 16, 1894.

13903. **Cryolite** and **Siderite.** Ivigtuk, Greenland. Theo. D. Rand. February 16, 1894.

13904. **Fibrolite** var. Bucholzite (silicate of aluminum). Park Station, Philadelphia, Pennsylvania. Theo. D. Rand. February 16, 1894.

13905. **Molybdenite** (sulphide of molybdenum) in gneiss. Frankford, Philadelphia, Pennsylvania. Theo. D. Rand. February 16, 1894.

13906. **Clinochlore** (hydrous silicate of aluminum and magnesium). Brinton's Quarry, Chester County, Pennsylvania. Theo. D. Rand. February 16, 1894.

13907. **Philadelphite** (near vermiculite). Wayne Station, Philadelphia, Pennsylvania. Theo. D. Rand. February 16, 1894.

13908. **Sussexite** (hydrous borate of manganese and magnesium) on Zincite. Franklin, New Jersey. Theo. D. Rand. February 16, 1894.

13909. **Lennilite**, a variety of Feldspar. Lenni, Pennsylvania. Theo. D. Rand. February 16, 1894.

13910. **Randite** (hydrous carbonate of uranium and calcium). Frankford, Philadelphia, Pennsylvania. Theo. D. Rand. February 16, 1894.

13911. **Jefferisite** (hydrous silicate of aluminum, iron, and magnesium). Brinton's Quarry, Chester County, Pennsylvania. Theo. D. Rand. February 16, 1894.

13912. **Gypsum** (hydrous sulphate of calcium). St. Mary's River, Maryland. Theo. D. Rand. February 16, 1894.

13913. **Grahamite** (a hydrocarbon near asphaltum). Ritchie County, West Virginia. Theo. D. Rand. February 16, 1894.

13914. **Annite**, a variety of Lepidomelane (silicate of alumina, iron, and potassium). Rockport, Cape Ann, Massachusetts. Theo. D. Rand. February 16, 1894.

13915. **Cryophyllite** (silicate of aluminum, iron, potassium, and lithium). Rockport, Cape Ann, Massachusetts. Theo. D. Rand. February 16, 1894.

13916. **Mullicite**, a variety of Vivanite (phosphate of iron). Mullica Hill, New Jersey. Theo. D. Rand. February 16, 1894.

13917. **Beraunite** (hydrous phosphate of iron). Mullica Hill, New Jersey. Theo. D. Rand. February 16, 1894.

13918. **Hydro-cuprite** (hydrate of copper). Cornwall, Pennsylvania. Theo. D. Rand. February 16, 1894.

13919. **Cæruleolactite** (hydrous phosphate of aluminum). White Horse, Chester County, Pennsylvania. Theo. D. Rand. February 16, 1894.

13920. **Pyrophyllite** (hydrous silicate of aluminum) —massive. San Diego, California. Hugh V. Caldwell. February 16, 1894.

13921. **Marble.** Indian Falls, Tennessee. A. L. Seager. February 20, 1894.

13922. **Marble.** "Dove Blue." Vermont. A. L. Seager. February 20, 1894.

13923. **Marble.** St. Beaume, France. A. L. Seager. February 20, 1894.

13924. **Marble.** "Rosael." Tennessee. A. L. Seager. February 20, 1894.

13925. **Marble.** Minnehaha Quarry, Tennessee. A. L. Seager. February 20, 1894.

13926. **Marble.** "Godfrey's Gray." Tennessee. A. L. Seager. February 20, 1894.

13927. **Marble.** "Light Cedar." Tennessee. A. L. Seager. February 20, 1894.

13928. **Marble.** "Dark Cedar." Tennessee. A. L. Seager. February 20, 1894.

13929. **Marble.** Hawkins County, Tennessee. A. L. Seager. February 20, 1894.

13930. **Marble.** "E" brand. Tennessee. A. L. Seager. February 20, 1894.

13931. **Marble.** "Maiden's Blush." Tennessee. A. L. Seager. February 20, 1894.

13932. **Calcite** (carbonate of calcium) in fine rhombohedral crystals, on hematite. Swank Mine, Lancashire, England. Williamsburgh Scientific Society. February 20, 1894.

13933. **Bloedite** (hydrous sulphate of sodium and magnesium). Colorado Desert, San Diego County, California. A. Blanc. February 20, 1894.

13934. **Hypersthene Gabbro.** Point Sal, Santa Barbara County, California. February 20, 1894.

13935. **Napalite** (a hydrocarbon). Silver Bow Mine of the Ætna Consolidated Company, Napa County, California. B. M. Newcomb. March 2, 1894.

13936. **Cinnabar** and **Native Mercury.** Silver Bow Mine of the Ætna Consolidated Company, Napa County, California. B. M. Newcomb. March 2, 1894.

13937. **Garnet**—Almandite. Nine miles southeast from Placerville, El Dorado County, California. J. P. Munson. March 2, 1894.

13938. **Serpentine.** Market Street cut, San Francisco, California. J. Z. Davis. March 2, 1894.

13939. **Leucophyre Rock.** Elk Creek, Glenn County, California. George Vanderford. March 5, 1894.

13940. **Quartz Porphyry.** Elk Creek, Glenn County, California. George Vanderford. March 5, 1894.

13941. **Colemanite.** Furnace Creek, Death Valley, Inyo County, California. March 5, 1894.

13942. **Silver Ore,** rich in gold. Lida Valley Mine, Lida Valley, Esmeralda County, Nevada. March 5, 1894.
Assay, 700 ounces silver, $250 gold per ton.

13943. **Silver Ore,** rich, coated with cerargyrite. Gold Mountain, Esmeralda County, Nevada. March 5, 1894.

13944. **Tufa**—Volcanic. Vanderbilt, San Bernardino County, California. Mr. Taggart. March 5, 1894.

13945. **Ammonite** (fragment). Cretaceous fossil. Elk Creek, Glenn County, California. E. Hunter. March 5, 1894.

13946. **Jasper.** Conglomerate of nodules of "porcelain" jasper, in a hard silicious clay. San Benito County, California. J. B. Smith. March 5, 1894.

13947. **Beauxite** (hydrous silicate of alumina and iron). Piedmont, Alabama. A. J. Robinson. March 5, 1894.

13948. **Rutile** (titanic acid) in quartz. Tyler's Ranch, Oleta, Amador County, California. March 5, 1894.

13949. **Gold Quartz.** Simat Mine, San Christoval, Rio Honda District, New Mexico. Theo. Wild. March 5, 1894.

13950. **Gold Quartz.** Rescue Mine, Long Cañon, Rio Honda District, New Mexico. Theo. Wild. March 5, 1894.

13951. **Borate of Lime.** Furnace Creek, Death Valley, Inyo County, California. March 5, 1894.

13952. **Gold Quartz.** Phœnix Mine, near Oroville, Butte County, California. March 5, 1894.

13953. **Bismuthinite** (sulphide of bismuth) in acicular crystals. Pontsmill, Cornwall, England. Joseph F. Cox. March 20, 1894.

13954. **Gold Quartz.** Melton Mine, Grizzly Flat, El Dorado County, California. L. L. Lombard. March 20, 1894.

13955. **Quicksilver Ore**—Cinnabar. From near the hanging wall, in the new stope on the 600-foot level, Santa Maria Shaft, New Almaden Mine, Santa Clara County, California. March 20, 1894.

13956. **Quicksilver Ore**—Cinnabar. From a deposit in sandstone on the Wright Ranch, 2 miles south from New Almaden, Santa Clara County, California. March 20, 1894.

13957. **Quicksilver Ore**—Cinnabar. From a deposit in sandstone. North Almaden Mine, near the head of Silver Creek, 9 miles southeast from San José, Santa Clara County, California. March 20, 1894.

13958. **Cinnabar**—very rich. From the recently discovered ore body, New Almaden Mine, Santa Clara County, California. Chas. E. Derby. March 20, 1894.

13959. **Gold**—Crystallized. In rich quartz from White River, Tulare County, California. M. Braverman. March 20, 1894.

13960. **Diorite**—Calcareous. Gay Quarry, Oak Hill Cemetery, 3 miles south from San José, Santa Clara County, California. March 20, 1894.

13961. **Magnesite** (carbonate of magnesium). From a ledge 10 to 15 feet wide on Hyland's ranch, 9 miles southeast from San José, Santa Clara County, California. M. H. Hyland. March 20, 1894.

13962. **Aragonite in Basalt.** Melbourne, Victoria. March 21, 1894.

13963. **Phacolite** (a zeolite). New England, New South Wales. March 21, 1894.

13964. **Phillipsite, Phacolite,** and **Aragonite** on Basalt. Melbourne, Victoria. March 21, 1894.

13965. **Nickel Ore.** Variety known as "chocolate ore," silicate of nickel, etc. New Caledonia. March 21, 1894.

13966. **Opal in Matrix.** White Cliffs, Wilcannia, New South Wales. March 21, 1894.

13967. **Kermesite** (oxy-sulphide of antimony) with Stibnite, on auriferous quartz. Hillgrove, New South Wales. March 21, 1894.

13968. **Auriferous Vein Matter,** with Embolite. Peak Hill, New South Wales. March 21, 1894.

13969. **Topaz.** New England, New South Wales. March 21, 1894.

13970. **Auriferous Brecciated Felsitic Vein Matter.** Mount Gahan, Pambula, New South Wales. March 21, 1894.

13971. **Auriferous Feldspathic Vein Matter.** Condobolin, New South Wales. March 21, 1894.
Mills 1 ounce 12 pennyweights per ton.

13972. **Auriferous Ferruginous Feldspathic Vein Matter.** Johnston & Party's Claim, Cullinga, New South Wales. March 22, 1894.
Mills 1 ounce 12 pennyweights per ton.

13973. **Gold Quartz,** rich in free gold. Baker's Creek, Hillgrove, near Armidale, New South Wales. March 22, 1894.

13974. **Gold Quartz** with Galena. Canowindra, New South Wales. March 22, 1894.
Mills 2 ounces 1 pennyweight per ton.

13975. **Auriferous Feldspathic Vein Matter.** Cobar, New South Wales. March 22, 1894.

13976. **Auriferous Talc Schist.** Mount Parnassus, New South Wales. March 22, 1894.
Mills 1 ounce 1 pennyweight per ton.

13977. **Auriferous Antimony Ore.** Eleanora Mine, Hillgrove, Armidale, New South Wales. March 22, 1894.
Mills 1 ounce gold per ton.

13978. **Columnar Sandstone.** Rendered so by intrusion of dyke. La Perouse, Sydney, New South Wales. March 22, 1894.

13979. **Bornite** (sulphide of iron and copper). Burly Jacky, Woodstock, New South Wales. March 22, 1894.

13980. **Chessylite,** a variety of Azurite. Cobar, New South Wales. March 22, 1894.

13981. **Copper**—Native. Proprietary Mine, Broken Hill, New South Wales. March 22, 1894.

13982. **Scheelite** (tungstate of calcium) with Stibnite. Hillgrove, New South Wales. March 22, 1894.

13983. **Molybdenite** (sulphide of molybdenum). Kingsgate, near Glenn Innes, New South Wales. March 22, 1894.

13984. **Alunite** (hydrous sulphate of aluminum and potassium). Bulladelah, New South Wales. March 22, 1894.
Yields 60 to 80 per cent of Alum, and is largely exported for that purpose.

13985. **Coal.** Coked by contact with erupted Basalt. Bulli, New South Wales. March 22, 1894.

13986. **Calcite and Siderite.** From near the Consols Mine, Broken Hill, New South Wales. March 22, 1894.

13987. **Auriferous Talc.** Bingera District, New South Wales. March 22, 1894.
Mills $7 per ton.

13988. **Stanniferous Copper Ore.** Gumble, New South Wales. March 22, 1894.
Carries a varying percentage of tin.

13989. **Auriferous Mispickel** (arsenical pyrite). Deep Creek, Nambucca, New South Wales. March 22, 1894.
Assays 8½ ounces gold per ton.

13990. **Auriferous Granite.** Poverty Point, Yimbarra, New South Wales. March 22, 1894.

13991. **Auriferous Jasper.** Brown's Creek, Blayney, New South Wales. March 22, 1894.
Mills $3 per ton.

13992. **Auriferous Felsite.** Bega, New South Wales. March 22, 1894.
Mills $17 per ton.

13993. **Chalybite** (carbonate of iron). Prospect, Paramatta, New South Wales. March 22, 1894.

13994. **Cassiterite** (oxide of tin) associated with Beryl. New England, New South Wales. March 22, 1894.

13995. **Argentiferous "Garnet Sandstone."** Junction North Mine, Broken Hill, New South Wales. March 22, 1894.
Carries 52 ounces silver per ton.

13996. **Mica** in Granite. Croftsbury, Vermont. F. Bacheller. March 22, 1894.

13997. **Jefferisite.** Mendocino County, California. G. W. Swales. March 22, 1894.

13998. **Iron Oxide.** Paramorph after Manganite? or Calcite? Tom Scott Mine, Turquois District, Cochise County, Arizona. March 28, 1894.

13999. **Auriferous Vein Matter.** Big Bowlder Mine, 4 miles north from Santa Cruz, Santa Cruz County, California. March 28, 1894.

14000. **Sandstone.** From a quarry on the Brittan Ranch, 3 miles northwest from Redwood City, San Mateo County, California. March 28, 1894.

14001. **Gold** — Crystallized. Verespatak, Transylvania. E. H. Brandt. March 30, 1894.

14002. **Sylvanite** (telluride of gold), with free gold. Offenbania Mine, Transylvania. E. H. Brandt. March 30, 1894.

14003. **Hessite** (telluride of silver), crystallized. Botes Mine, Zalathna, Transylvania. E. H. Brandt. March 30, 1894.

14004. **Topaz** (silicate of alumina). Thomas Mountain, Willard County, Utah. Don Maguire. March 30, 1894.

14005. **Gold Quartz.** Humboldt Mine, Leavenworth District, Okanogan County, Washington. Geo. Donan. March 30, 1894.

14006. **Auriferous Chalcopyrite.** Nigger Creek, Kittitas County, Washington. James A. Hillyer. March 30, 1894.

14007. **Gold Quartz.** Hillyer No. 1 Mine, Leavenworth District, Okanogan County, Washington. James A. Hillyer. March 30, 1894.
Said to assay $100 per ton.

14008. **Auriferous Pyrite.** P. I. Mine, Leavenworth District, Okanogan County, Washington. James A. Hillyer. March 30, 1894.
Said to assay $100 per ton.

14009. **Moss Agate.** Tyler's Ranch, Oleta, Amador County, California. March 30, 1894.

14010. **Cummingtonite** (iron magnesium amphibole). Cummington, Massachusetts. Geo. E. Sprague. March 30, 1894.

14011. **Indurated Volcanic Ash.** From a five-foot stratum on the Bayo Road, 1½ miles from Cedar Mountain Road, and 10 miles S.E. from Livermore, Alameda County, California. April 7, 1894.

14012. **Wollastonite.** Dry Creek, Middletown, Lake County, California. J. L. Reed. April 7, 1894.

14013. **Mercury**—Native. Oat Hill Mine, Pope Valley, Napa County, California. April 7, 1894.

14014. **Cinnabar** (sulphide of mercury) in sandstone. Oat Hill Mine, Napa County, California. April 7, 1894.

14015. **Cinnabar** (sulphide of mercury) in serpentine. Dry Creek, near Middletown, Lake County, California. April 7, 1894.

14016. **Quicksilver Ore**—Cinnabar. Summit Mine, head of Dry Creek, Napa County, California. E. J. Keeney. April 7, 1894.

14017. **Mercury** — Native — and **Cinnabar.** Ætna Mine, Pope Valley, Napa County, California. B. M. Newcomb. April 7, 1894.

14018. **Cinnabar** and **Pyrite.** Ætna Mine, Pope Valley, Napa County, California. B. M. Newcomb. April 7, 1894.

14019. **Cinnabar**—Crystallized. Ætna Mine, Pope Valley, Napa County, California. B. M. Newcomb. April 7, 1894.

14020. **Cinnabar** and **Bitumen.** Ætna Mine, Pope Valley, Napa County, California. B. M. Newcomb. April 7, 1894.

14021. **Cinnabar Crystals.** Found loose in a cavity in the Phœnix Mine, Pope Valley, Napa County, California. E. A. Hardy. April 7, 1894.

14022. **Quicksilver Ore** — Conglomerate. Great Western Mine, Lake County, California. April 7, 1894.

14023. **Calcareous Rock,** containing alumina and silica, which probably might be utilized for the manufacture of cement. Cedar Mountain Road, 8 miles S.E. from Livermore, Alameda County, California. April 7, 1894.

14024. **Gold**—Crystallized. Washeim's Mine, White Horse District, Wadsworth, Nevada. Chas. T. Washeim. April 7, 1894.

14025. **Gold Quartz.** Lucky S. No. 1 Mine, near Taylorville, Plumas County, California. Henry C. Langrehr. April 19, 1894.
Said to assay $35 to $40 per ton.

14026. **Gold Quartz.** Lucky S. No. 2 Mine, near Taylorville, Plumas County, California. Henry C. Langrehr. April 19, 1894.
Concentrates said to assay $350 per ton.

14027. **Gold Quartz.** Damascus Mine, near Taylorville, Plumas County, California. Henry C. Langrehr. April 19, 1894.
Said to assay $35 per ton.

14028. **Gold Quartz.** Yellowstone Mine, Bear Valley, Mariposa County, California. Henry C. Langrehr. April 19, 1894.
Said to assay $35 per ton.

14029. **Gold Quartz.** Bunker Hill group of mines, near Shasta, Shasta County, California. H. C. Langrehr. April 19, 1894.
Said to assay $10 per ton.

14030. **Manganese Ore** — Pyrolusite. Railroad Mine, near Prescott's Ranch, 1 mile S.E. from Livermore, Alameda County, California. April 19, 1894.

14031. **Limestone** — Hydraulic. Oil Cañon, 1½ miles E. from Stewartville, Contra Costa County, California. April 19, 1894.

14032. **Cement Rock.** Benicia, Solano County, California. April 19, 1894.

14033. **Hanksite** (sulphate and carbonate of sodium). Very large and fine crystal, believed to be the finest ever found, and several smaller ones. From the saline deposits of the San Bernardino Borax Company, Borax Lake, Slate Range, San Bernardino County, California. J. W. Searles. April 19, 1894.

14034. **Silver Ore.** Marble Cañon Mine, Waucoba Mountain, Inyo County, California. W. C. Chapin. April 19, 1894.
Assay given with specimen, $7 50 gold and 504 ounces of silver per ton.

14035. **Sandstone**—Refractory; resists the action of fire when used as a substitute for fire-brick. Quarry of Richardson Bros., Truckee, Nevada County, California. May 1, 1894.
The small piece has been subjected to a repeated and prolonged burning.

14036. **Muscovite Mica**, of excellent quality, and obtainable in large sheets. Bennett Claim, Kamloops, B. C. Jas. Van Bramer. May 1, 1894.

14037. **Clay,** nearly one half the bulk of which consists of fine angular quartz sand. El Dorado, El Dorado County, California. Formerly No. 10566. May 1, 1894.

14038. **Chalcedony.** Vicinity of the Manhattan Quicksilver Mine, Napa County, California. May 1, 1894.

14039. **Gold Quartz,** rich in free gold. Ella Jane and Blue Necktie, and Carlotta and Red Necktie mines, Gold Gulch, Panamint Mountains, Inyo County, California. Discovered April 20, 1894. From the Company. May 14, 1894.

14040. **Argentite** (sulphide of silver) in coal. Silver Reef, Southern Utah. Walter S. Maxwell. May 14, 1894.

14041. **Scutella gibbsi.** Remond. Miocene fossil. Kettleman Plain, Kings County, California. May 14, 1894.

14042. **Galerus filosus.** Gabb. Miocene fossil. Kettleman Hills, Kings County, California. May 14, 1894.

14043. **Pseudocardium gabbi.** Remond. Miocene fossil. Kettleman Hills, Kings County, California. May 14, 1894.

14044. **Mya arenaria.** Pliocene fossil. Kettleman Hills, Kings County, and Sunset Oil District, Kern County, California. May 14, 1894.

14045. **Ostrea bourgeoisii.** Miocene fossil. Krayenhagen Ranch and Tar Cañon, Kings County, California. May 14, 1894.

14046. **Astrodapsis antiselli** (young and old). Miocene fossil. Krayenhagen Ranch, Kings County, California. May 14, 1894.

14047. **Balanus estrellanus.** Con. Miocene fossill Krayenhagen Ranch, Kings County, California. May 14, 1894.

14048. **Pecten deserti.** Con. Miocene fossil. Asphalto, Kern County, California. May 14, 1894.

14049. **Opalized Wood.** Blue Tent, Nevada County, California. J. Z. Davis. May 14, 1894.

14050. **Salt,** which forms a thick crust on the surface of the ground at Death Valley, Inyo County, California. May 14, 1894.

14051. **Hematite.** Crude, and ground ready for use. Paint Mine, near Healdsburg, Sonoma County, California. From the Company. May 14, 1894.

14052. **Manganese Ore** — Pyrolusite. Maillard Ranch, 1½ miles S.W. from San Geronimo, Marin County, California. May 14, 1894.

14053. **Chromic Iron.** Maillard Ranch, 1½ miles S.W. from San Geronimo, Marin County, California. May 14, 1894.

14054. **Cervantite** (oxide of antimony). Lottie Mine, Wild Rose District, Inyo County, California. Jos. Davidson and Frank Kennedy. May 14, 1894.

14055. **Galenite** crystals, coated with silica on silver ore from the Blue Wing Mine, Panamint, Inyo County, California. Wm. Russell. May 14, 1894.

14056. **Iron Ore**—Magnetite. Padre (gold) Mine, Gleason District, Los Angeles County, California. May 14, 1894.

14057. **Iron Ore**—Magnetite. Half a mile from Ravenna Station S. P. R. R., Los Angeles County, California. May 14, 1894.

14058. **Talc.** From near San Rafael, Marin County, California. Chas. Hamilton. May 14, 1894.

14059. **Anamesite**—a variety of basalt. Laundry Farm, Alameda County, California. May 14, 1894.

14060. **Gold Quartz.** Savage Mine, 5 miles west of Acton, Los Angeles County, California. May 14, 1894.

14061. **Gold Quartz.** Eagle Mine, Gleason District, Los Angeles County, California. May 14, 1894.

14062. **Gold Quartz.** Sawyer Mine, Argus Mountains, Inyo County, California. Mills & Stiles. May 14, 1894.

14063. **Gold Quartz.** Mariposa Mine, Coso District, Inyo County, California. May 14, 1894.

14064. **Gold Quartz.** Webelt & Wilson Mine, Argus Mountains, Inyo County, California. May 14, 1894.

14065. **Lava**—White. Claremont Peak, Plumas County, California. May 14, 1894.

14066. **Granite** — Fine grained. Little Tejunga Cañon, Los Angeles County, California. May 14, 1894.

14067. **Diorite-Porphyrite.** Dyke in the French Placer Mine, Greenwood, El Dorado County, California. May 14, 1894.

14068. **Trachyte.** Morro, San Luis Obispo County, California. May 14, 1894.

14069. **Jasper.** San Miguel Cañon, Monterey County, California. May 14, 1894.

14070. **Limestone.** San Fernando, Los Angeles County, California. May 14, 1894.

14071. **Malacolite** (silicate of calcium and magnesium). Panamint, Inyo County, California. May 17, 1894.

14072. **Feldspar,** variety Labradorite. Mount Gleason, Los Angeles County, California. May 17, 1894.

14073. **Steatite** — "Soapstone," with Montmorillonite. Death Valley, Inyo County, California. May 17, 1894.

14074. **Coal**—Bituminous. Discovered October, 1893, at Chignik Bay, Alaska. Dr. F. F. Sprague. May 17, 1894.

ANALYSIS S. M. B.

Water	3.75
Volatile hydrocarbons	32.75
Fixed carbon	48.25
Ash	15.25
Total	100.00

Yields 63 per cent of good compact coke.

14075. **Gold** and **Roscoelite.** Stuckslager Mine, Coloma, El Dorado County, California. May 17, 1894.

14076. **Ammonite** Sp.? Cretaceous fossil. Headwaters of Manzana Creek, 20 miles N.E. from Santa Ynez, Santa Barbara County, California. May 17, 1894.

14077. **Fossil Leaf.** From the slate overlying the coal at Hyampom Valley, Trinity County, California. May 17, 1894.

14078. **Fossil Elephant's Teeth.** Andreaoffsky, Yukon River, Alaska. Joe Kruft. May 17, 1894.

14079. **Orthoceras** Sp.? Wisconsin. D. Thaamum. May 17, 1894.

14080. **Fossil Leaves.** Four miles north from Elsinore, San Diego County, California. May 17, 1894.

14081. **Mammalian Fossil.** Probably the flipper of a seal or walrus. South Riverside, Riverside County, California. May 17, 1894.

14082. **Echinarachinus** Sp.? Miocene fossil. Headwaters of Arroyo Grande, near Musick, San Luis Obispo County, California. May 17, 1894.

14083. **Baculite.** Cretaceous fossil. D. C. Stone. May 17, 1894.

14084. **Fossils**—Jurassic. From the Mormon sandstone, Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14085. **Trigonia** Sp.? Jurassic fossil. From the Mormon sandstone, Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14086. **Rhynconella** Sp.? Jurassic fossil. From the Mormon sandstone, Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14087. **Terebratula** Sp.? Jurassic fossil. From the Mormon sandstone, Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14088. **Belemnites** Sp.? Jurassic fossil. From the Mormon sandstone, Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14089. **Modiola** Sp.? Jurassic fossil. Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14090. **Terebratula** Sp.? Jurassic fossil. Hinchman tuff, Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14091. **Stylina** Sp.? Jurassic fossil. Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14092. **Terebratula** Sp.? Jurassic fossil. Thompson limestone, Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14093. **Nerinea** Sp.? Jurassic fossil. Thompson limestone, Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14094. **Pinna** Sp.? Jurassic fossil. Hardgrove sandstone, Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14095. **Grevillia gigantea.** Jurassic fossil. Hardgrove sandstone, Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14096. **Pecten acutiplicatus.** Jurassic fossil. Hardgrove sandstone, Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14097. **Entolium** Sp.? Jurassic fossil. Hardgrove sandstone, Mount Jura, Plumas County, California. Prof. T. W. Stanton, Geological Survey. May 17, 1894.

14098. **Entolium** Sp.? Jurassic fossil. Mormon sandstone, Mount Jura, Plumas County, California. Prof. T. W. Stanton, U. S. Geological Survey. May 17, 1894.

14099. **Colemanite** (borate of lime). Pacific Coast Borax Mine, Calico, San Bernardino County, California. H. Hinkle. May 17, 1894.

14100. **Opalized Wood.** Three specimens from Bennett Valley, Sonoma County, California. J. P. Stanley. May 17, 1894.

14101. **Lignite in Petrified Wood.** Quaker Hill, Nevada County, California. J. Z. Davis. May 23, 1894.

14102. **Gold Quartz.** Harrison Mine, 5 miles N.E. from Oro Grande, San Bernardino County, California. May 23, 1894.

14103. **Gold Quartz.** Althea Mine, Oro Grande, San Bernardino County, California. May 23, 1894.

14104. **Wood Specimens** (nine). Sinaloa, Mexico. W. S. Keyes. May 23, 1894.

(*a*) Chineto.
(*b*) Venadillo.
(*c*) Jamapa Verde.
(*d*) Brazil.
(*e*) Piojillo.
(*f*) Tepejuaje.
(*g*) Tepemesquite.
(*h*) Ebano blanco.
(*i*) Jamapa prieta.

14105. **Silver Ore.** Black Metal Mine, 50 miles S.E. from Needles, San Bernardino County, California. May 23, 1894.

14106. **Analcite Diabase.** Cuyama River, San Luis Obispo County, California. May 23, 1894.

14107. **Gold Quartz.** Rich in free gold. Murchison (northern) Gold Field, West Australia. Jas. Parkinson, M.E. May 23, 1894.

14108. **Gold Quartz,** rich in free gold. Great Bowlder Claim, Coolgardie (southern) Gold Field, West Australia. Jas. Parkinson, M.E. May 23, 1894.

This locality is about 250 miles from No. 14107, with a continuous gold field between the two.

14109. **Gold Quartz,** with free gold. Australia Claim, Coolgardie, West Australia. Jas. Parkinson, M.E. May 23, 1894.

14110. **Quartz Geode.** Larimer County, Colorado. May 23, 1894.

14111. **Scoria.** From the Rhyolite beds, S.E. from Vanderbilt, San Bernardino County, California. May 23, 1894.

14112. **Rhyolite** (six varieties). From the hills S.E. from Vanderbilt, San Bernardino County, California. May 23, 1894.

14113. **Trachyte** (two varieties). From a dyke 4 miles W. from Vanderbilt, San Bernardino County, California. May 23, 1894.

14114. **Anamesite**—a variety of basalt. Hills S. E. from Vanderbilt, San Bernardino County, California. May 23, 1894.

14115. **Vitrophyre** (three varieties). From a dyke 4 miles W. of Vanderbilt, San Bernardino County, California. May 23, 1894.

14116. **Feldspar**—Orthoclase. Vanderbilt, San Bernardino County, California. May 23, 1894.

14117. **Felsitic Mineralized Dyke Rock,** in which the ore is found in Campbell's Boomerang Mine, Vanderbilt, San Bernardino County, California. May 23, 1894.

14118. **Gold Quartz.** Gold Bar Mine, Vanderbilt, San Bernardino County, California. May 23, 1894.

14119. **Gold Quartz.** From a depth of 300 feet in the Gold Bronze Mine, Vanderbilt, San Bernardino County, California. May 23, 1894.

14120. **Gold Quartz.** Campbell's Boomerang Mine, Vanderbilt, San Bernardino County, California. May 23, 1894.

14121. **Gold Quartz.** Chippy Mine, Vanderbilt, San Bernardino County, California. May 23, 1894.

14122. **Cardium quadragenarium.** Con. Cretaceous fossil. Coalinga, Fresno County, California. May 23, 1894.

14123. **Pinna venturensis.** Yates. Cretaceous fossil. Coalinga, Fresno County, California. May 23, 1894.

14124. **Trophon ponderosus.** Gabb. Cretaceous fossil. Coalinga, Fresno County, California. May 23, 1894.

14125. **Pecten** Sp.? (new variety). Pliocene fossil. Krayenhagen's, Kings County, California. May 23, 1894.

14126. **Gold Quartz**, showing free gold. Hesper Mine, Hildreth District, Madera County, California. P. J. Neuman. May 23, 1894.

14127. **Marble** (two varieties). From a bed 200 feet wide, Wright Ranch, 8 miles from Hacienda Station, and 5 miles S.E. from New Almaden, Santa Clara County, California. May 23, 1894.

14128. **Phonolite.** Black Butte, Spearfish, South Dakota. May 23, 1894.

14129. **Amphibole** — "Mountain Cork." Craig's Cañon, east slope of Inyo Mountains, Inyo County, California. June 7, 1894.

14130. **Quartzite** — Concretionary. Darwin, Inyo County, California. June 7, 1894.

14131. **Silver Ore** — High grade. Switzer Mine, Beveridge District, Inyo County, California. June 7, 1894.

14132. **Silver Ore** (argentiferous galena and anglesite). Cerro Gordo, Inyo County, California. June 7, 1894.

14133. **Copper Ore.** Brilliant Mine, Ord Mountain, 13 miles S. from Daggett, San Bernardino County, California. June 7, 1894.

14134. **Gold Quartz.** Summit Mine, Ord Mountain, San Bernardino County, California. June 7, 1894.

14135. **Gold Quartz.** Ord Mountain, 13 miles S. from Daggett, San Bernardino County, California. June 7, 1894.

14136. **Diorite**—Amygdaloidal. Country rock, Ord Mountain, San Bernardino County, California. June 7, 1894.

14137. **Diorite** — Fine-grained. Country rock, Ord Mountain, San Bernardino County, California. June 7, 1894.

14138. **Jasper.** Occurs in the ore vein of the Silver King Mine, Calico, San Bernardino County, California. June 7, 1894.

14139. **Pandermite** (borate of lime). Occurs 5 miles E. from Calico, San Bernardino County, California. June 7, 1894.

14140. **Boracic Acid,** made from the "Borax Rock," or indurated mud, No. 14141, at Calico, San Bernardino County, California, by Stevens & Greer. June 7, 1894.

14141. **Borax Rock**—so-called, from which the boracic acid, No. 14140, and the borax, No. 14142, are made. Columbian Mine, Calico, San Bernardino County, California. Stevens & Greer. June 7, 1894.

14142. **Borax,** made from the "Borax Rock," No. 14141. Stevens & Greer. June 7, 1894.

14143. **Celestite** (sulphate of strontium). Found in the borax-yielding formation, No. 14141, at Calico, San Bernardino County, California. June 7, 1894.

14144. **Porphyry.** Partially decomposed and showing large crystals of feldspar of a "zonal" structure. U. S. Coast and Geodetic Survey station at the top of the bluff at the extreme west end of Santa Cruz Island, Santa Barbara County, California. June 8, 1894.

14145. **Platinum Ore** (two varieties). From near Broken Hill, New South Wales. Numerous assays have shown this rock to contain two ounces of platinum to the ton. June 8, 1894.

14146. **Borate of Lime and Magnesia.** Stevens group of mines, near Calico, San Bernardino County, California. June 8, 1894.
Said to contain 30 per cent of boracic acid.

14147. **Sandstone**—Bituminous. Fisherman's Cove, Redondo Beach, Los Angeles County, California. June 8, 1894.

14148. **Gold Quartz.** Queen Mine, Cargo Muchacho District, San Diego County, California. June 12, 1894.

14149. **Gold Quartz,** showing free gold. Golden Cross Mine, Cargo Muchacho District, San Diego County, California. June 12, 1894.

14150. **Gold Quartz.** Santa Fe Mine, 1 mile E. from Oro Grande Station, San Bernardino County, California. June 12, 1894.

14151. **Silver Ore.** Begum Mine, 5 miles N.E. from Oro Grande, San Bernardino County, California. June 12, 1894.

14152. **Silver Ore.** Galoot Mine, 5 miles E. from Oro Grande, San Bernardino County, California. June 12, 1894.

14153. **Quartz**—Stratified. From near San Fernando Cañon, Los Angeles County, California. A. Blanc. June 12, 1894.

14154. **Sandstone**—Red. Paramatta, near Sydney, New South Wales. J. Z. Davis. June 12, 1894.

The city of Sydney is largely built of this stone.

14155. **Sandstone**—Mottled. Paramatta, near Sydney, New South Wales. J. Z. Davis. June 12, 1894.

14156. **Mica Schist.** Cargo Muchacho District, San Diego County, California. June 12, 1894.

14157. **Gneiss.** Cargo Muchacho District, San Diego County, California. June 12, 1894.

14158. **Gold Quartz,** showing free gold. Hexahedron Mine, 18 miles N.E. from Indio, Riverside County, California. June 12, 1894.

14159. **Gold Quartz.** Lost Horse Mine, 20 miles N. from Indio, Riverside County, California. June 12, 1894.

14160. **Gold Quartz.** Piñon group of mines, 12 miles N. from Indio, Riverside County, California. June 23, 1894.

14161. **Lollingite** (prismatic arsenical pyrites) in vein matter of the Mayflower Gold Mine, Amador City, Amador County, California. A. B. Swan. June 23, 1894.

14162. **Quartz**, colored black by oxide of iron. Amador County, California. A. B. Swan. June 23, 1894.

14163. **Gold Quartz**, with chalcopyrite. Yetter's Mine, near Latrobe, El Dorado County, California. June 23, 1894.

14164. **Silver Ore.** Very rich ore coated with cerargyrite. Bullion Beck Mine, Tintic District, Utah. Mrs. H. H. Day. June 23, 1894.

14165. **Gold Quartz,** showing free gold, with **Albite** (soda feldspar). Huron Mine, Auberry Valley, Fresno County, California. June 23, 1894.

14166. **Gold Quartz,** showing free gold. Lawsuit Mine, Hildreth District, Madera County, California. June 23, 1894.

14167. **Gold Quartz.** Mount Sterling Mine, Fancher Creek, Big Dry Creek District, Fresno County, California. June 23, 1894.

14168. **Gold Quartz.** Barton Mine, Rattlesnake Creek, near Auckland, Tulare County, California. June 23, 1894.

14169. **Copper Ore** — Chrysocolla. Yokohl Mine, Yokohl Creek, Tulare County, California. June 23, 1894.

14170. **Gold Quartz,** with arsenical pyrites. Mount Filmore Con. Mine, Poker Flat, Sierra County, California. Wingate & Symonds. June 23, 1894.

14171. **Quicksilver Ore**—Cinnabar. La Joye Mine, Napa County, California. F. W. Keene. July 7, 1894.

14172. **Gold Quartz.** Champion Mine, Nevada City, California. From the Company. July 7, 1894.

14173. **Wall Rock**—Slate. Hanging wall of the Diadem Mine, Meadow Valley, Plumas County, California. J. A. Edman. July 7, 1894.

14174. **Gold Quartz.** From the 65-foot level of the Diadem Mine, Meadow Valley, Plumas County, California. J. A. Edman. July 7, 1894.
Average assay, $72 per ton. (Edman.)

14175. **Auriferous Vein Matter**—Quartz and Pyrites. From the 110-foot level of the Diadem Mine, Meadow Valley, Plumas County, California. J. A. Edman. July 7, 1894.
Assay, $15 per ton. (Edman.)

14176. **Gold Quartz.** From the 300-foot level of the Diadem Mine, Meadow Valley, Plumas County, California. J. A. Edman. July 7, 1894.
Assay, $23 per ton. (Edman.)

14177. **Wall Rock**—Slate. Country rock near foot wall of the Diadem Mine, Meadow Valley, Plumas County, California. J. A. Edman. July 7, 1894.

14178. **Rhodonite** (silicate of manganese). Penrose Lode, Plumas County, California. J. A. Edman. July 7, 1894.

14179. **Psilomelane** (oxide of manganese and barium). Mumford's Hill, Plumas County, California. J. A. Edman. July 7, 1894.

14180. **Copper Ore,** rich in native silver, containing 65 per cent copper and 200 ounces silver per ton. High Ore Mine, Butte, Montana. From the Company. July 7, 1894.

14181. **Copper Ore.** Green Mountain Mine, Butte, Montana. From the Company. July 7, 1894.
Contains 55 per cent copper and 80 ounces silver per ton.

14182. **Copper Ore.** Butte and Boston Mine, Butte, Montana. From the Company. July 7, 1894.
Contains 60 per cent copper and 120 ounces silver per ton.

14183. **Copper Ore.** Butte and Boston Mine, Butte, Montana. From the Company. July 7, 1894.
Contains 40 per cent copper and 300 ounces silver per ton.

14184. **Chalcostibite** (sulphide of copper and antimony). Butte and Boston Mine, Butte, Montana. July 7, 1894.

14185. **Pyrophyllite** (silicate of aluminum). Massive variety. From the 300-foot level of the Diadem Mine, Meadow Valley, Plumas County, California. J. A. Edman. July 7, 1894.

14186. **Building Stone**—Sandstone. Coyote Valley, near Middletown, Lake County, California. A. H. Cheney. July 7, 1894.

14187. **Wall Rock**—Granite. Forms both walls of the Good Hope Mine, 4½ miles S.W. from Perris, Riverside County, California. July 7, 1894.

14188. **Gold Quartz.** Good Hope Mine, 4½ miles S.W. from Perris, Riverside County, California. July 7, 1894.

14189. **Gold Quartz.** Stanford Mine, 5 miles S.W. from Perris, Riverside County, California. July 7, 1894.

14190. **Gold Quartz.** Victoria Mine, 3 miles W. from Perris, Riverside County, California. July 7, 1894.

14191. **Gold Quartz.** El Plomo Mine, 4 miles W. from Perris, Riverside County, California. July 7, 1894.

14192. **Gold Quartz.** Leon Mine, 14 miles S.E. from Perris, Riverside County, California. July 7, 1894.

14193. **Gold Quartz.** Alice Mine, 4 miles S.E. from Menifee, Riverside County, California. July 7, 1894.

14194. **Silver Ore.** Old Dominion Mine, 7 miles W. from Elsinore, Orange County, California. July 7, 1894.

14195. **Marble.** Cut and polished. From a quarry at Bear Mountain, Valley Springs, Calaveras County, California. July 7, 1894.

14196. **Fossil Tooth.** Probably from a young animal of a species closely related to the manatee, sea-cow, or dugong. Found on the South Fork of Kern River, near Kernville, Kern County, California, at an elevation of 2700 feet above sea-level. Benj. T. Price. July 20, 1894.

14197. **Sulphur**—Native, with Gypsum. Gulf of California, near the boundary line of San Diego County. A. D. Shepard. July 20, 1894.

14198. **Copper** — Refined ingot. Manufactured by the Penn Chemical Works, Campo Seco, Calaveras County, California. Solon Pattee. July 20, 1894.

14199. **Cinnabar** (sulphide of mercury), crystallized. Silver Bow Mine, Pope Valley, Napa County, California. M. G. Rhodes. July 20, 1894.

14200. **Silver Ore,** with gold. 3250-foot level of the Savage Mine, Virginia City, Nevada. J. A. Yerington. August 1, 1894.

This was the greatest depth at which pay ore was obtained in any of the mines on the Comstock Lode.
Assay, gold $20, silver 41 ounces per ton.

14201. **Stalactitic Limonite.** Large and very fine specimen. Lost Confidence Mine, Iron Mountain, Shasta County, California. Chas. Camden. August 1, 1894.

14202. **Ullmannite** (sulph-antimonide of nickel). Lovelocks, Churchill County, Nevada. J. A. Yerington. August 9, 1894.

14203. **Nickel and Cobalt Ore**—Annabergite (hydrous arsenate of nickel) and arsenate of cobalt, said to assay 43 per cent of nickel. Lovelocks, Churchill County, Nevada. J. A. Yerington. August 9, 1894.

14204. **Gypsum** (sulphate of calcium). Acton, Los Angeles County, California. Alpine Plaster and Cement Company. August 9, 1894.

14205. **Gold Quartz,** showing free gold. Ella Mine, Julian District, San Diego County, California. August 9, 1894.

14206. **Gold Quartz.** Burnap Mine, Upper Holcombe Valley, San Bernardino County, California. August 9, 1894.

14207. **Gold Quartz.** Helvetia Mine, Julian District, San Diego County, California. August 9, 1894.

14208. **Gold Quartz.** Gold Rock Mine, Mesa Grande, San Diego County, California. August 9, 1894.

14209. **Gold Quartz.** Wildcat Mine, Mesa Grande, San Diego County, California. August 9, 1894.

14210. **Gold Quartz.** Gold Mountain Mine, 7 miles E. from Bear Valley Lake, San Bernardino County, California. E. J. Baldwin. August 9, 1894.

14211. **Gold Quartz.** Center Mine, 20 miles E. from Bear Valley Lake, San Bernardino County, California. From the Morongo King Mining Company. August 9, 1894.

14212. **Mica Schist.** Country rock at the Helvetia Mine, Julian District, San Diego County, California. August 9, 1894.

14213. **Chalcopyrite** (sulphide of copper and iron) on a mass of stellated quartz crystals. Japan. J. Z. Davis. August 9, 1894.

14214. **Pyrite** (bisulphide of iron) on Calcite. Cornwall, England. J. Z. Davis. August 9, 1894.

14215. **Pyrite**—Variety known as "Cockscomb Pyrite," coated with Cinnabar (sulphide of mercury). Redington Mine, Napa County, California. J. Z. Davis. August 9, 1894.

14216. **Hematite** (sesquioxide of iron) and Quartz. Superior Mine, Michigan. J. Z. Davis. August 9, 1894.

14217. **Martite** — a variety of hematite. Cleaveland Mine, Michigan. J. Z. Davis. August 9, 1894.

14218. **Gold and Telluride of Gold.** Pilot Mine, Ouray County, Colorado. J. Z. Davis. August 9, 1894.

14219. **Chalcopyrite**— Variety known as "Blister Copper." Cornwall, England. J. Z. Davis. August 9, 1894.

14220. **Ankerite** (carbonate of magnesia, iron, and calcium). St. Austell, Cornwall, England. J. Z. Davis. August 9, 1894.

14221. **Feldspar**—Oligoclase (silicate of aluminum, calcium, and sodium). Hawk Mine, Bakersville, North Carolina. J. Z. Davis. August 9, 1894.

14222. **Feldspar** — Oligoclase, variety known as "Sun Stone." Middletown, Delaware County, Pennsylvania. J. Z. Davis. August 9, 1894.

14223. **Warwickite** (boro-titanate of iron and magnesium). Edenville, New York. J. Z. Davis. August 9, 1894.

14224. **Pyrargyrite** (sulph-antimonide of silver). Austin, Lander County, Nevada. J. Z. Davis. August 9, 1894.

14225. **Stephanite** (sulph-antimonide of silver). Triumfo Mine, New Mexico. J. Z. Davis. August 9, 1894.

14226. **Argentite** (sulphide of silver). Promontorio Mine, Durango, Mexico. J. Z. Davis. August 9, 1894.

14227. **Bournonite** (sulph-antimonide of copper and lead). Herodsfoot, Cornwall, England. J. Z. Davis. August 9, 1894.

14228. **Campylite**—a variety of Mimetite. Cornwall, England. J. Z. Davis. August 9, 1894.

14229. **Staurolite** (silicate of magnesium and iron). Litchfield, Connecticut. J. Z. Davis. August 9, 1894.

14230. **Fibrolite**—a variety of sillimanite. Deep River, Connecticut. J. Z. Davis. August 9, 1894.

14231. **Sillimanite** (silicate of alumina). Norwich, Connecticut. J. Z. Davis. August 9, 1894.

14232. **Chlorophæite** (hydrous silicate of iron). Turner's Falls, Massachusetts. J. Z. Davis. August 9, 1894.

14233. **Liskeardite** (arsenate of iron and alumina). Liskeard, Cornwall, England. J. Z. Davis. August 9, 1894.

14234. **Corundum**—Fine crystal. Chester County, Pennsylvania. J. Z. Davis. August 9, 1894.

14235. **Corundum** (alumina) in Ripidolite (hydrous silicate of aluminum and magnesium). Lincoln County, North Carolina. J. Z. Davis. August 9, 1894.

14236. **Gibbsite** (hydrate of alumina). Richmond, Massachusetts. J. Z. Davis. August 9, 1894.

14237. **Quartz,** with included **Gramatite,** a variety of hornblende. J. Z. Davis. August 9, 1894.

14238. **Quartz Crystals,** with included **Chlorite.** Butte County, California. J. Z. Davis. August 9, 1894.

14239. **Copper Ore** — Chalcopyrite. Eden Valley, near Carey P. O., Mendocino County, California. W. P. Thomas. August 9, 1894.

14240. **Anglesite** (sulphate of lead). Cerro Gordo, Inyo County, California. August 9, 1894.

14241. **Gold Quartz,** showing free gold. Bonanza Mine, Homer District, Lundy, Mono County, California. J. Parrett. August 21, 1894.

14242. **Barite** (sulphate of barium), with traces of Anhydrite. From near the Mammoth Mine, Mineral Hill, Lake District, Mono County, California. August 21, 1894.

14243. **Jasper**— Mottled. Park County, Colorado. W. C. Hart. August 21, 1894.

14244. **Calcite Geode,** with Chalcedony. Larimer County, Colorado. W. C. Hart. August 21, 1894.

14245. **Calcite Crystals.** Larimer County, Colorado. W. C. Hart. August 21, 1894.

14246. **Rhodocrosite** (carbonate of manganese). John Reed Mine, Climax, Lake County, Colorado. W. C. Hart. August 21, 1894.

14247. **Sapphire** (corundum). El Dorado Bar, Montana. M. Braverman. August 21, 1894.

14248. **Tin Ore.** Rich ore, showing abundant crystals of Cassiterite. Chorolco Mine, Cotogoita, Bolivia. J. J. Hill. August 21, 1894.

14249. **Marble.** Five cut and polished slabs of various colors, from a recently opened quarry near Enseñada, Lower California. Antoine Fusillet. August 21, 1894.

14250. **Granite.** Argus Range, Inyo County, California. August 21, 1894.

Occurs in immense quantity and would make a very handsome building stone.

14251. **Harmotome** (hydrous silicate of aluminum, barium, and potassium). Lake Superior, Michigan. J. Z. Davis. September 5, 1894.

14252. **Aragonite** (carbonate of calcium), polished. Utah. J. Z. Davis. September 5, 1894.

14253. **Bismuthinite** (sulphide of bismuth), with a button of metal reduced from it. From near Independence, Inyo County, California. P. H. Mack. September 5, 1894.

14254. **Marble,** polished slab. Marulan, New South Wales. September 7, 1894.

14255. **Marble,** polished slab. Cow Flat, near Orange, New South Wales. September 7, 1894.

14256. **Serpentine,** polished slab. Bingara, New South Wales. September 7, 1894.

14257. **Siderite** (carbonate of iron). Umlerumberka, New South Wales. September 7, 1894.

14258. **Iodyrite** (iodide of silver). Australian Consolidated Mine, Broken Hill, New South Wales. September 7, 1894.

14259. **Embolite** (chloro-bromide of silver) on ferruginous lodestuff. Broken Hill, New South Wales. September 7, 1894.

14260. **Bismuth**—Native. Kings-gate, Glen Innes, New South Wales. September 7, 1894.

14261. **Limonite** — Stalactitic. Proprietary Mine, Broken Hill, New South Wales. September 7, 1894.

14262. **Molybdite** (oxide of molybdenum) and **Molybdenite.** Kings-gate, Glen Innes, New South Wales. September 7, 1894.

14263. **Tetrahedrite** (sulph-antimonide of copper), with Sphalerite. Captain's Flat, New South Wales. September 7, 1894.

14264. **Pyrite** (bisulphide of iron). Leadville, Colorado. A. J. Gove. September 7, 1894.

14265. **Pyromorphite** (phosphate and chloride of lead), with Embolite. Proprietary Mine, Broken Hill, New South Wales. September 7, 1894.

14266. **Limonite** (hydrate of iron). Lost Confidence Mine, Iron Mountain, Shasta County, California. September 7, 1894.

14267. **Sand** containing gold and platinum. North Coast, New South Wales. September 7, 1894.

14268. **Tin Ore**—"Stream Tin." Mann River, New England, New South Wales. September 7, 1894.

14269. **Tin Ore**—Cassiterite. Nuggety Gully, New England, New South Wales. September 7, 1894.

14270. **Tin Ore**—"Lode Tin." New England, New South Wales. September 7, 1894.

14271. **Auriferous Silicious Breccia,** assaying 13⅓ ounces gold per ton. Tamworth, New South Wales. September 7, 1894.

14272. **Auriferous Basalt,** assaying from $3 to $4 per ton, gold. Ballina, New South Wales. September 7, 1894.

14273. **Auriferous Chloritic Rock,** with Magnetite, assaying 1¾ ounces gold per ton. Bingara, New South Wales. September 7, 1894.

14274. **Limonite** — Pseudomorph after Cerussite. Lewis Ponds, Western District, New South Wales. September 7, 1894.

14275. **Cerussite** (carbonate of lead), coated with "lava"? and showing crystals of Embolite. Broken Hill, New South Wales. September 7, 1894.

14276. **Stolzite** (tungstate of lead) and **Cuproscheelite.** Peetwood, near Yass, New South Wales. September 7, 1894.

14277. **Indian Stone Pestle.** Made and used by the Rogue River Indians of Southern Oregon. Found near Jacksonville, Jackson County, Oregon. C. B. Rostel. September 17, 1894.

14278. **Garnet**—Andradite (iron-calcium garnet) altered to chlorite. Lake Superior, Michigan. J. J. Kinrade. September 17, 1894.

14279. **Auriferous Conglomerate.** Battery Reef, Johannesburg, South Africa. Alexander M. Womble. September 17, 1894.

14280. **Auriferous Conglomerate.** 300-foot level of the Randfontein Mine, near Johannesburg, South Africa. Alexander M. Womble. September 17, 1894.

14281. **Auriferous Conglomerate.** 400-foot level of the Crown Reef, Johannesburg, South Africa. Alexander M. Womble. September 17, 1894.

14282. **Auriferous Conglomerate.** 500-foot level of the Sumner and Jack Mine, Johannesburg, South Africa. Alexander M. Womble. September 17, 1894.

14283. **Auriferous Conglomerate.** 600-foot level of the Langlaagte Mine, Johannesburg, South Africa. Alexander M. Womble. September 17, 1894.

14284. **Auriferous Conglomerate.** City and Suburban Mine, Johannesburg, South Africa. Alexander M. Womble. September 17, 1894.

14285. **Zinc Ore**—Sphalerite. Blue Light Mine, Santiago Cañon, Orange County, California. September 26, 1894.

14286. **Gold Quartz.** Bondurant Mine, 11 miles N.E. from Coulterville, Mariposa County, California. September 26, 1894.

14287. **Gold Quartz.** Crisp Camp, Mariposa County, California. H. T. Jenkin. September 26, 1894.
Formerly No. 13015.

14288. **Quicksilver Ore**—Cinnabar. From near Horseshoe Bend, Merced River, Mariposa County, California. Charles L. Mast. September 26, 1894.
Formerly No. 7081.

14289. **Telluric Ore.** Gold, silver, and copper, with the tellurium perhaps in combination with the silver as Hessite, or otherwise. Good Hope Mine, San Juan County, Colorado. Ira A. Scott. October 2, 1894.

14290. **Gold Quartz.** Little Jamison Mine, Plumas County, California. October 2, 1894.

14291. **Gold Quartz.** Pride Mine, Sierra City, Sierra County, California. October 2, 1894.

14292. **Gold Quartz.** Johnny Bull Mine, Greenville District, Plumas County, California. G. Standart. October 2, 1894.

14293. **Gold Quartz.** Kanaka Mine, Sierra County, California. October 2, 1894.

14294. **Gold Quartz.** Punch Creek Mine, Humbug District, Siskiyou County, California. October 2, 1894.

14295. **Gold Quartz.** Gold Bluff Mine, Downieville District, Sierra County, California. October 2, 1894.

14296. **Auriferous Vein Matter,** showing free gold, with copper and silver. Green Ledge Extension, Genesee Valley, Plumas County, California. October 2, 1894.

14297. **Gold Quartz.** Texas Consolidated Mine, Old Diggings District, Shasta County, California. October 2, 1894.

14298. **Auriferous Vein Matter,** with copper and silver. Green Ledge, Genesee Valley, Plumas County, California. October 2, 1894.

14299. **Gold Quartz.** Homestake Mine, Granite Basin, Plumas County, California. C. Waldron. October 2, 1894.

14300. **Gold Quartz.** Landy's Mine, Middle Bar District, Calaveras County, California. October 2, 1894.

14301. **Gold Quartz,** showing free gold. Plumas Eureka Mine, Johnstown, Plumas County, California. T. B. Inch. October 2, 1894.

14302. **Gold Quartz.** Savercool Mine, North Fork of Feather River, Plumas County, California. October 2, 1894.

14303. **Auriferous Pyrite and Galena.** Plumas Eureka Mine, Johnstown, Plumas County, California. S. S. Taylor. October 2, 1894.

14304. **Gold Quartz.** Granite Basin, Plumas County, California. October 2, 1894.

14305. **Gold Quartz.** North Star Mine, Shasta District, Shasta County, California. October 2, 1894.

14306. **Gold Quartz.** Genesee Valley Mine, Plumas County, California. W. McCartney. October 2, 1894.

14307. **Copper**—Native, with gold and silver. Mountain Meadows, Plumas County, California. William C. Root. October 2, 1894.

Said to assay $4 gold and 160 ounces silver per ton.

14308. **Gold Quartz.** Lookout Mine, Black Hawk District, San Bernardino County, California. October 2, 1894.

14309. **Gold Quartz.** Santa Fe Mine, Black Hawk District, San Bernardino County, California. J. B. Cook. October 2, 1894.

14310. **Gold Quartz.** Black Hawk Mine, Black Hawk District, San Bernardino County, California. October 2, 1894.

14311. **Country Rock**—Granitic. Lookout Mine, Black Hawk District, San Bernardino County, California. October 2, 1894.

14312. **Auriferous Conglomerate.** Golden Fleece Mine, Ashland, Oregon. October 2, 1894.

This deposit is in the "Chico" cretaceous sandstone, and is supposed to be a continuation of the auriferous gravel recently found in Siskiyou County, California.

14313. **Quicksilver Ore**—Cinnabar in calcite. Ashland, Oregon. October 2, 1894.

From a vein intersecting the auriferous conglomerate in the Golden Fleece Mine.

14314. **Gold Quartz.** St. Gothard Mine, North Columbia District, Nevada County, California. October 4, 1894.

14315. **Gold Quartz.** Behr Mine, Old Diggings District, Shasta County, California. October 4, 1894.

14316. **Gold Quartz.** J. I. C. Mine, French Gulch District, Shasta County, California. October 4, 1894.

14317. **Copper Ore.** Salinas Mine, Red Mountain District, Mendocino County, California. October 4, 1894.

14318. **Silver Ore**—Argentiferous galena. Independence Mine, Round Mountain District, Shasta County, California. October 4, 1894.

14319. **Coal**—Lignite of good quality, from a vein about 8 feet thick. Thomas Mine, Salt Creek, 3 miles west of Eden Valley, Eel River Coal Field, Mendocino County, California. W. P. Thomas. October 4, 1894.

14320. **Pyrite Nodules.** Genesee Valley, Plumas County, California. October 4, 1894.

14321. **Gold Quartz.** Four Hills Mine, Sierra County, California. S. S. Taylor. October 4, 1894.

14322. **Gold Quartz.** Mollie Mine, Dry Creek District, Shasta County, California. October 9, 1894.

14323. **Gold Quartz.** Phœnix Mine, Sierra City, Sierra County, California. October 9, 1894.

14324. **Gold Quartz.** Alabama Mine, Mariposa District, Mariposa County, California. October 9, 1894.

14325. **Gold Quartz.** Wildman Mine, Sutter Creek, Amador County, California. October 9, 1894.

14326. **Gold Quartz.** Gold Bank Mine, Forbestown District, Butte County, California. October 9, 1894.

14327. **Gold Quartz.** Royal Consolidated Mine, Copperopolis, Calaveras County, California. October 9, 1894.

14328. **Gold Quartz.** Crystal Mine, South Fork District, Shasta County, California. October 9, 1894.

14329. **Gold Quartz.** Live Oak Mine, Flat Creek District, Shasta County, California. October 9, 1894.

14330. **Gold Quartz.** Black and Brown Bear Mine, Squaw Creek District, Shasta County, California. October 9, 1894.

14331. **Auriferous Gravel.** Blue Gravel Mining Company, Cottonwood District, Siskiyou County, California. October 9, 1894.

14332. **Gold Quartz.** Thompson Mine, Shasta District, Shasta County, California. October 9, 1894.

14333. **Gold Quartz.** Banner Mine, Oroville District, Butte County, California. October 9, 1894.

14334. **Limestone** — Hydraulic. (Cement rock.) Frazer Brothers' quarry, 6 miles S.W. from South Riverside, Riverside County, California. October 9, 1894.

14335. **Ankerite and Mariposite.** From near the Rawhide Mine, Tuolumne County, California. October 9, 1894.

14336. **Fluorite** (fluoride of calcium). Ferris Cañon, eastern slope of the Sweetwater Mountains, Mono County, California. October 14, 1894.

14337. **Cassiterite** (oxide of tin), crystals. Perak and Selangore, Malay Peninsula, between Penang and Singapore. Dr. John Rabe. October 14, 1894.

14338. **Syenite.** Wisconsin. J. J. Kinrade. October 14, 1894.

14339. **Chromic Iron.** Greystone, Santa Clara County, California. Louis Oldham. October 14, 1894.

14340. **Gold Quartz.** Peck Mine, Tuolumne County, California. Albert Moore. October 14, 1894.

14341. **Gold Quartz.** Butte Bar Mine, Middle Fork of Feather River, Plumas County, California. Geo. L. Brown. October 14, 1894.
Formerly No. 7057.

14342. **Beauxite** (hydrous oxide of aluminum and iron). Piedmont, Alabama. A. J. Robinson. October 26, 1894.
Formerly No. 13947.

14343. **Pinna venturensis.** Yates. Pliocene fossil. Ventura, California. S. Bowers. October 26, 1894.
Formerly No. 12923.

14344. **Gold,** in leaf form, with crystals of quartz, one of which contains included gold. Found by G. A. Leland, at Nigger Hill, near Jamestown, Tuolumne County, California, April 14, 1890. October 26, 1894.
Formerly No. 11622.

14345. **Colemanite** (borate of calcium), 7 specimens. Calico Borate Deposit, Calico, San Bernardino County, California. Mrs. J. W. S. Perry. October 30, 1894.

14346. **Celestite** (sulphate of strontium). Calico Borate Deposit, Calico, San Bernardino County, California. Mrs. J. W. S. Perry. October 30, 1894.

14347. **Auriferous Vein Matter.** Gold Reef Mine, Fish Springs District, Inyo County, California. James McCarthy. October 30, 1894.

14348. **Silver Ore,** high grade. Little Emily Mine, Blind Spring Hill, Benton, Mono County, California. October 30, 1894.

14349. **Rhyolite.** Four varieties from the vicinity of the silver mines at Calico, San Bernardino County, California. October 30, 1894.

14350. **Vitrophyre.** Two specimens from the north and middle ranges of hills at Calico, San Bernardino County, California. October 30, 1894.

14351. **Copper Ore**—Covellite and Chalcanthite, a pseudomorph after Chalcopyrite. Satellite Mine, Campo Seco, Calaveras County, California. November 10, 1894.

14352. **Marble**—Numidian. A. L. Seager. November 10, 1894.

14353. **Marble.** Blood City, South Dakota. A. L. Seager. November 10, 1894.

14354. **Wall and Country Rocks** of the Gover Mine, 1½ miles N.W. from Amador City, Amador County, California. Twelve specimens, showing the gradual change from diabase to talc. Collected by W. H. Storms, M.E. November 14, 1894.

(*a*) Diabase, hanging wall.
(*b*) Diabase, showing alteration from shearing.
(*c*) Diabase, much altered and becoming chloritic.

(*d*) Diabase, slaty structure and chloritic.
(*e*) Talc slate, altered from diabase.
(*f*) Talcose schist, altered from diabase.
(*g*) Talc schist, altered from diabase.
(*h*) Talc schist, altered from diabase.
(*i*) Talc schist, altered from diabase.
(*j*) Talc schist, altered from diabase.
(*k*) Talc schist, altered from diabase.
(*l*) Talc, altered from diabase.

14355. **Wall Rocks** of the Amador Queen Mine, 2½ miles S.E. from Jackson, Amador County, California. W. H. Storms, M.E. November 14, 1894.

(*a*) Diabase, hanging wall 25 to 30 feet from vein.
(*b*) Diabase, transition to talc schist, 15 to 20 feet from vein.
(*c*) Diabase, transition to talc schist, 10 to 15 feet from vein.
(*d*) Diabase, transition to talc schist, 5 to 10 feet from vein.
(*e*) Talc schist (altered from disbase), next to quartz vein.
(*f*) Argillite. Foot wall of the Amador Queen.

14356. **Wall Rocks** of the Kennedy Mine, Jackson, Amador County, California. W. H. Storms, M.E. November 14, 1894.

(*a*) Hanging wall, altered diabase.
(*b*) Altered diabase, dyke in vein.
(*c*) Foliated talc schist in crevice.
(*d*) Pyritous slate, foot wall side of vein.

14357. **Talc Schist.** Zeila Mine, Amador County, California. November 14, 1894.

14358. **Basalt.** From the summit of "Punta del Diablo," the highest peak of Santa Cruz Island, Santa Barbara County, California. November 14, 1894.

14499. **Marble.** Japan. A. L. Seager. March 18, 1895.

14500. **Marble**—"Fossilite Marble." Tema County, Iowa. A. L. Seager. March 18, 1895.

14501. **Jasper** (three specimens). Egypt. J. Z. Davis. April 6, 1895.

14502. **Iron Ore**—Hematite, var. "Specular Iron." Cerro del Mercado, the "Iron Mountain" near the City of Durango, Mexico. J. B. Storch. April 6, 1895.

14503. **Tin Ore**—Cassiterite, "Stream Tin." Rio Canelas, Durango, Mexico. J. B. Storch. April 6, 1895.

14504. **Tin Ore**—Cassiterite, "Lode Tin." Durango, Mexico. A. W. Hulse. April 6, 1895.

14505. **Marble**—"Iowa Marble." Quarry, Tema County, Iowa. A. L. Seager. April 6, 1895.

14506. **Auriferous Sulphate of Alumina,** several tons of which were successfully worked for gold. Sulphur Creek, Colusa County, California. J. A. Veatch. April 12, 1895.

14507. **Granite,** "Quincy." Specimen cut from a sleeper used in constructing a temporary railroad built for the purpose of transporting the material for the Bunker Hill Monument from West Quincy to Boston, Massachusetts. J. Z. Davis. April 22, 1895.

14508. **Granite.** Westerly, Rhode Island. J. Z. Davis. April 22, 1895.

14509. **Granite**—Red. Calais, Maine. J. Z. Davis. April 22, 1895.

14510. **Granite.** Barre, Vermont. J. Z. Davis. April 22, 1895.

14511. **Granite.** Concord, New Hampshire. J. Z. Davis. April 22, 1895.

14512. **Marble.** Lake Champlain, New York. A. L. Seager. April 22, 1895.

14513. **Scolecite** (hydrous silicate of aluminum and calcium). Andreasburg, Germany. J. Z. Davis. April 22, 1895.

14514. **Auriferous Limonite.** Crown Point Mine, Cochiti Mining District, Bland, New Mexico. T. C. Quin. April 22, 1895.

14515. **Phosphate Rock** (two varieties). Clipperton Island. A. Blanc. May 3, 1895.

14516. **Indian Dish,** carved from a block of serpentine. Found in 1887 in a bluff on the Coquille River, near Bandon, Coos County, Oregon. May 3, 1895.

14517. **Quartz Breccia.** From near Salinas, Monterey County, California. T. Gates. May 6, 1895.

14518. **Mercury**—Native, in volcanic mud. From the "Thermal Spring Belt," Calistoga, Napa County, California. D. A. McDonald. May 9, 1895.

One cubic yard of this mud yields one and one half pounds of mercury when panned out, as in prospecting for gold. Sixteen and one half cubic feet of the mud weigh 2,000 pounds.

14519. **Gold Quartz,** rich in free gold. British Guiana. W. H. Storms. May 13, 1895.

14520. **Gold in Calcite.** Santa Rosa Mine, Bear Creek, Mariposa County, California. E. H. Cox. May 13, 1895.

14521. **Gold Quartz,** showing free gold. Capping of the auriferous calcite, No. 14520. Santa Rosa Mine, Bear Creek, Mariposa County, California. E. H. Cox. May 13, 1895.

14522. **Griphite** (phosphate of manganese, aluminum, iron, sodium, etc.). Riverton Lode, near Harney City, Pennington County, South Dakota. May 21, 1895.

14523. **Chondrodite** (fluosilicate of magnesia). Tilly Foster Mine, Brewster, New York. May 21, 1895.

14524. **Clinochlore** (hydrous silicate of aluminum and magnesium). Tilly Foster Mine, Brewster, New York. May 21, 1895.

14525. **Cobaltite** (sulph-arsenide of cobalt), fine crystal. Hakansbo, Sweden. May 21, 1895.

14526. **Mactra ashburneri.** Gabb. Cretaceous fossil. Central and eastern Shasta County, California. May 21, 1895.

14527. **Chione varians.** Gabb. Cretaceous fossil. Central and eastern Shasta County, California. May 21, 1895.

14528. **Trigonia caudata.** Agassiz. Cretaceous fossil (Chico). South Cow Creek, Shasta County, California. May 21, 1895.

14529. **Homomya concentrica.** Gabb. Cretaceous fossil. Near Horsetown, Shasta County, California. May 21, 1895.

14530. **Pectunculus veatchi.** Gabb. Cretaceous fossil (Chico). South Cow Creek, and central and eastern Shasta County, California. May 21, 1895.

14531. **Volutilithes navarroensis.** Gabb. Cretaceous fossil. South Cow Creek, Shasta County, California. May 21, 1895.

14532. **Terebratella obesa.** Gabb. Cretaceous fossil. Four miles east of Horsetown, Shasta County, California. May 21, 1895.

14533. **Fulguraria.** Cretaceous fossil. South Cow Creek, Shasta County, California. May 21, 1895.

14534. **Pugnellus hamulus.** Gabb. Cretaceous fossil. Central and eastern Shasta County, California. May 21, 1895.

14535. **Corbula traski.** Gabb. Cretaceous fossil (Chico). South Cow Creek, and central and eastern Shasta County, California. May 21, 1895.

14536. **Gyrodes conradiana.** Gabb. Cretaceous fossil. South Cow Creek, Shasta County, California. May 21, 1895.

14537. **Turritella chicoensis.** Gabb. Cretaceous fossil. Near Santiago Cañon and Silverado Cañon, Orange County, California. May 21, 1895.

14538. **Anchura californica.** Gabb. Cretaceous fossil. Near Santiago Cañon and Silverado Cañon, Orange County, California. May 21, 1895.

14539. **Crassatella lomana.** Cooper. Cretaceous fossil (Chico). Near Santiago Cañon and Silverado Cañon, Orange County, California. May 21, 1895.

14540. **Meretrix (cyprineria) lens.** Gabb. Cretaceous fossil. Near Santiago Cañon and Silverado Cañon, Orange County, California. May 21, 1895.

14541. **Pecten operculiformis.** Gabb. Cretaceous fossil. Near Silverado Cañon, Orange County, California. May 21, 1895.

14542. **Trigonia caudata.** Agassiz. Cretaceous fossil (Chico). Near Silverado Cañon, Orange County, California. May 21, 1895.

14543. **Pectunculus sagittata.** Gabb. Cretaceous fossil. Near Silverado Cañon, Orange County, California. May 21, 1895.

14544. **Trigonia evansana.** Meek. Cretaceous fossil. Near Silverado Cañon, Orange County, California. May 21, 1895.

14545. **Arca decurtata.** Gabb. Cretaceous fossil. Near Silverado Cañon, Orange County, California. May 21, 1895.

14546. **Ammonites (schloenbachia) chicoensis.** Gabb. Cretaceous fossil. Near Silverado Cañon, Orange County, California. May 21, 1895.

14547. **Baculites chicoensis.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California. May 21, 1895.

14548. **Buccinium liratum.** Gabb. Eocene fossil (Tejon). Lake County, California. May 21, 1895.

14549. **Spironema (atresius) liratus.** Gabb. Lower Cretaceous fossil. Three miles east of Morgan Valley, on the road to Knoxville, Napa County, California. May 21, 1895.

14550. **Gold Quartz.** Edna Mine, Spring Gulch District, Calaveras County, California. J. S. White, Superintendent. May 31, 1895.

Vein 8 feet wide, and said to assay $35 66 gold per ton.

14551. **Serpentine,** changing to blue asbestus. Baker's Beach, San Francisco, California. J. Z. Davis. May 31, 1895.

14552. **Bismuthinite** (sulphide of bismuth). Wickes, Jefferson County, Montana. F. W. Traphagen. June 1, 1895.

14553. **Sandstone**—Argillaceous. Head of Carson Creek, Mariposa County, California. J. D. Ludwig. June 1, 1895.

14554. **Silver Ore,** with large crystals of barite (sulphate of barium), and brown crystallized calcite. Calico, San Bernardino County, California. J. Z. Davis. June 1, 1895.

14555. **Sphalerite** (sulphide of zinc), electric variety. Caracoles Mine, Southern Chile. Gustavo Gabler, I.M., per W. C. Quinby, M.E. June 7, 1895.

Only a small quantity of this peculiar ore was found. Scratched with a steel point, it emits a shower of electric sparks.

14556. **Coal**—Lignite. Corral Hollow, Alameda County, California. June 12, 1895.

MEAN OF THREE ANALYSES, S. M. B. (Mathyas).

Water	12.00
Volatile hydrocarbons	45.00
Fixed carbon	32.00
Ash	11.00
	100.00

14557. **Aragonite** ("Onyx Marble"). Utah. A. L. Seager. June 12, 1895.

14558. **Marble.** China. A. L. Seager. June 12, 1895.

14559. **Marble.** ("Pyrenees Green"). France. A. L. Seager. June 12, 1895.

14560. **Marble.** ("Victoria Red"). England. A. L. Seager. June 12, 1895.

14561. **Marble.** Enseñada, Lower California, Mexico. A. L. Seager. June 12, 1895.

14562. **Limonite**—Silicious. Sheep Ranch, Calaveras County, California. W. H. Storms. June 20, 1895.

14563. **Pecten martinezensis.** Gabb. Eocene fossil. Santa Paula Creek, Ventura County, California. June 20, 1895.

14564. **Spirocrypta pileum.** Gabb. Eocene fossil (Tejon). Santa Paula Creek, Ventura County, California. June 20, 1895.

14565. **Cardium panamense.** Sby. Miocene fossil. Santa Paula Creek, Ventura County, California. June 20, 1895.

14566. **Bothrophyllum.** Upper Silurian fossil (Helderberg Limestone). Louisville, Kentucky.

14567. **Zaphrentis** Sp. Upper Silurian fossil. Sandusky, Ohio.

14568. **Hydrodolomite,** crystallized on serpentine. Corner of Webster and Ridley Streets, San Francisco, California. S. H. Herring. June 26, 1895.

14569. **Limonite** (hydrate of iron). From a crater with a vent of unknown depth, four miles from Reno, Nevada. It has been used as a flux in the Reno Reduction Works. C. L. Canfield. June 26, 1895.

14570. **Auriferous Pyrrhotite** (magnetic pyrite). Typical specimen of the ore from this and other mines of the district. Average assay, $50 per ton gold. Country rock, diorite; iron capping on the lodes. War Eagle Mine, Trail Creek District, Rossland, British Columbia. H. Adam. June 26, 1895.

14571. **Auriferous Pyrrhotite.** Le Roy Mine, Trail Creek District, Rossland, British Columbia. See No. 14570. H. Adams. June 26, 1895.

14572. **Auriferous Pyrrhotite.** Cliff Mine, Trail Creek District, Rossland, British Columbia. See No. 14570. H. Adams. June 26, 1895.

14573. **Clay.** Of very fine quality, plastic, free from sand, and containing about 40 per cent of alumina. Castella, Shasta County, California. L. N. Girard. July 15, 1895.

14574. **Mica Schist**—crumpled. From near Golden, Colorado. July 15, 1895.

14575. **Granite**—variety known as "Graphic Granite." Clear Creek Cañon, Colorado. July 15, 1895.

14576. **Sandstone**—Argillaceous. Cripple Creek, Colorado. July 15, 1895.

14577. **Hematite and Jasper**—interstratified. Ishpeming, Michigan. July 15, 1895.

14578. **Natrolite** (hydrous silicate of aluminum and sodium). South Table Mountain, Golden, Colorado. July 15, 1895.

14579. **Silver Ore.** Stanley Consol. Mine, Idaho Springs, Colorado. July 15, 1895.

14580. **Silver**—Native. Lamartine Mine, Idaho Springs, Colorado. July 15, 1895.

14581. **Gold Quartz,** with Telluride of Gold and Fluorite. C. O. D. Mine, Cripple Creek, Colorado. July 15, 1895.

14582. **Chert.** Three miles northeast from Balfour, Colorado. July 15, 1895.

14583. **Gneiss.** Typical specimen from Newhouse Tunnel, Idaho Springs, Colorado. July 15, 1895.

14584. **Porphyry.** Stanley Mine, Idaho Springs, Colorado. July 15, 1895.

14585. **Porphyry.** Lamartine Mine, Idaho Springs, Colorado. July 15, 1895.

14586. **Gold Quartz.** Gold Chief Mine, Goff's Mining District, San Bernardino County, California. Mrs. J. Young. July 29, 1895.

14587. **Fossiliferous Rock.** Known in Japan as "Plum Blossom Stone." It contains numerous fossil Echinoderms. Sent from Kioto, Japan, by Miss Lila Garvin. August 8, 1895.

14588. **Porphyry,** locally used as a building stone. Lee's quarry, 4 miles northwest from San Luis Obispo, San Luis Obispo County, California. August 8, 1895.

14589. **Porphyry.** Two varieties from the quarry on Morro Rock, Morro Bay, San Luis Obispo County, California. August 8, 1895.

The smaller brown piece shows the effect of weathering.

14590. "**Bituminous Rock,**" extra hard variety. Quarry of the San Luis Obispo Bituminous Rock Company, 7 miles south from San Luis Obispo, San Luis Obispo County, California. August 8, 1895.

14591. **Marble**—polished slab. Antelope Valley, Los Angeles County, California. A. L. Seager. August 8, 1895.

14592. **Sulphur**—Native. Sulphur Mountain, near Santa Paula, Ventura County, California. August 8, 1895.

14593. **Copper Ore.** Rich ore, principally Chalcocite, with some Chalcopyrite. Big Pine, Inyo County, California. S. G. Gregg. August 8, 1895.

14594. **Lava.** Mono County, California. W. C. Chapin. August 27, 1895.

14595. **Ulexite** (borate of lime) in a rock formation. Mesquite Valley, Inyo County, California. W. C. Chapin. August 27, 1895.

14596. **Ulexite** (borate of lime) in gravel wash. Mesquite Valley, Inyo County, California. W. C. Chapin. August 27, 1895.

14597. **Ulexite** (borate of lime) and **Gypsum.** Furnace Creek, Inyo County, California. W. C. Chapin. August 27, 1895.

14598. **Slate**—Contorted. Occurs from 12 to 20 inches thick in the quartz vein of the Mahoney Mine, and has no connection with the wall rock. Sutter Creek, Amador County, California. E. C. Voorheis. August 29, 1895.

14599. **Gold Quartz.** Cow Boy Mine, Castle Peak District, near Bridgeport, Mono County, California. August 29, 1895.

14600. **Auriferous Vein Matter**—Barite (sulphate of barium), carrying free gold. Morning Mine, Big Bend of Feather River, Butte County, California. J. R. Scupham. August 29, 1895.

14601. **Jasper.** Reed Ranch, Marin County, California. J. Z. Davis. September 2, 1895.

14602. **Jasper.** Nevada City, Nevada County, California. C. L. Canfield. September 2, 1895.

14603. **Azurite** (carbonate of copper). Copper Queen Mine, Bisbee, Arizona. Ben Williams. September 3, 1895.

14604. **Aragonite** (carbonate of calcium). From a tunnel in the Morgan Mine, Carson Hill, Calaveras County, California. September 4, 1895.

14605. **Platinum.** French Mine, near Junction City, Trinity County, California. Mons. E. Saladin, Superintendent. September 4, 1895.

14606. **Gold in Calcite.** Bonanza Mine, near Minersville, Trinity County, California. Mrs. Tourtellotte. September 4, 1895.

14607. **Gold Quartz.** Three Sisters Mine, 2 miles northwest from French Gulch, Shasta County, California. Ellery Bros. September 28, 1895.

14608. **Gold Quartz.** Prince Albert Mine, Cripple Creek, Colorado. E. E. Smith. October 4, 1895.

14609. **Gold Quartz.** Independence Mine, Cripple Creek, Colorado. E. E. Smith. October 4, 1895.

14610. **Gold Quartz.** Portland Mine, Cripple Creek, Colorado. E. E. Smith. October 4, 1895.

14611. **Gold Quartz.** Jack G. Mine, Cripple Creek, Colorado. E. E. Smith. October 4, 1895.

14612. **Gold Quartz.** King of Diamonds Mine, Cripple Creek, Colorado. E. E. Smith. October 4, 1895.

Said to assay from $300 per ton upwards.

14613. **Steatite.** Fir Hill Ranch, 2 miles west from Chiles Post Office, Napa County, California. John Johnson. October 5, 1895.

14614. **Petro-silex.** From near San Andreas, Calaveras County, California. October 5, 1895.

14615. **Gold Quartz.** Tombstone Mine, Fish Springs District, Big Pine, Inyo County, California. G. B. Cornetti. October 5, 1895.

14616. **Gold Quartz.** Alvord Mine, Big Pine, Inyo County, California. M. A. Bush. October 5, 1895.

14617. **Gold Quartz.** Southern Belle Mine, Mono County, California. E. Duennig, Superintendent. October 5, 1895.

14618. **Gold Quartz.** Polita Mine, Inyo County, California. G. Storey, Superintendent. October 5, 1895.

14619. **Auriferous Vein Matter,** with silver and copper. Sacramento Mine, Mono County, California. G. F. Willis, Superintendent. October 5, 1895.

14620. **Copper Ore**—high grade. Copper Queen Mine, Big Pine, Inyo County, California. October 5, 1895.

14621. **Iron Ore**—Micaceous Hematite. Ledge 4 feet wide, 7 miles east from Big Pine, Inyo County, California. October 5, 1895.

14622. **Silver Ore**—Argentiferous Galena. Trespierre Mine, Beveridge District, Inyo County, California. October 5, 1895.

14623. **Asphaltum.** Peculiar porous variety. Patera Mines, Santa Barbara County, California. October 10, 1895.

14624. **Breccia.** From the railroad track between Carpinteria and Rincon, Santa Barbara County, California. October 10, 1895.

14625. **Asphaltum**—extra hard. Rincon Mine, Santa Barbara County, California. October 10, 1895.

14626. **Auriferous partially decomposed Granite.** From a ledge 4 feet wide, now being successfully worked. San Antonio Mine, West Point, Calaveras County, California. F. McMillan. October 10, 1895.

14627. **Gold Quartz.** Madrone Mine, Pioneer District, Volcano, Amador County, California. In a granite formation. W. Q. Mason. October 10, 1895.

14628. **Copper Ore.** Rich ore, chiefly Erubescite, with some Chalcopyrite, carrying 30 ounces silver per ton and some gold. Cosumnes Copper Mine, El Dorado County, California. John Theisen. October 22, 1895.

14629. **Gold Quartz.** Said to assay $400 per ton. Golden Gate Mine, near Sonora, Tuolumne County, California. Presented by the Company. October 30, 1895.

14630. **Mine Ladder.** Made and used about 45 years ago by the Mexican miners in the New Almaden Quicksilver Mine, Santa Clara County, California. C. C. Derby. October 30, 1895.

14631. **Trona** (native carbonate of sodium). Teel's Marsh, Esmeralda County, Nevada. F. M. Smith. (Formerly No. 6600.)

14632. **Auriferous Arsenical Pyrite.** From the Ackley vein of the Sierra Gold Company's Mine, near Downieville, Sierra County, California. From the Company. November 6, 1895.

The smaller specimen shows free gold.

14633. **Auriferous Vein Matter.** "Soft Kidneys," largely clay, and usually rich in gold. Found in the Ackley vein of the Sierra Gold Company's Mine, near Downieville, Sierra County, California. From the Company. November 6, 1895.

14634. **Gold Quartz** (Jaspery). From the pay shoot of the Shenandoah Mine, French Ravine, Plumas County, California. From the Company. November 6, 1895.

Assay sent with specimen: $15 per ton, free gold; sulphurets, $200 per ton.

14635. **Relief Map of Sierra County, California.** Presented by the Sierra County Miners' Association, per H. W. Orear. November 6, 1895.

14636. **Macoma inquinata.** Desh. Pliocene fossil. Rincon Asphalt Mine, Santa Barbara County, California. November 12, 1895.

14637. **Pisania fortis.** Carp. Pliocene fossil. Rincon Asphalt Mine, Santa Barbara County, California. November 12, 1895.

14638. **Venericardia borealis.** Con. (var. ventricosa, Gld.). Pliocene fossil. Rincon Asphalt Mine, Santa Barbara County, California. November 12, 1895.

14639. **Crepidula grandis.** Midd. Pliocene fossil. Rincon Asphalt Mine, Santa Barbara County, California. November 12, 1895.

14640. **Janira (vola) bella.** Con. Pliocene fossil. Rincon Asphalt Mine, Santa Barbara County, California. November 12, 1895.

14641. **Chrysodomus (siphonalia) kelleti.** Forbes. Pliocene fossil. Rincon Asphalt Mine, Santa Barbara County, California. November 12, 1895.

14642. **Pecten expansus.** Dall. The first found north of San Diego. Pliocene fossil. Temescal Cañon, near Santa Monica, Los Angeles County, California. November 12, 1895.

14643. **Terebratella occidentalis.** Dall. Pliocene fossil. Temescal Cañon, near Santa Monica, Los Angeles County, California. November 12, 1895.

14644. **Pecten stearnsi.** Dall. Pliocene fossil. Brown's Cañon, near Santa Monica, Los Angeles County, California. November 12, 1895.

14645. **Olivella biplicata.** Sby. Pliocene fossil. Higgins' Well, Carpinteria, Santa Barbara County, California. November 12, 1895.

14646. **Lucina californica.** Con. Pliocene fossil. Higgins' Well, Carpinteria, Santa Barbara County, California. November 12, 1895.

14647. **Saxidomus gracilis.** Gld. Pliocene fossil. Higgins' Well, Carpinteria, Santa Barbara County, California. November 12, 1895.

14648. **Shale**—Silicious; with small nodules of quartz, and crystals of Pyrite. Placerville, El Dorado County, California. Wm. Craddock. December 14, 1895.

14649. **Marble.** From the property of the Monterey Waterworks Company, near Monterey, Monterey County, California. Wm. Skinner, Superintendent. December 14, 1895.

14650. **Auriferous Argillaceous Conglomerate,** rich in free gold. Mt. Leyshon Mine, Charters Towers, Queensland, Australia. From the Company. December 14, 1895.

14651. **Auriferous Argillaceous Conglomerate,** showing gold in ferruginous seam. Mt. Leyshon Mine, Charters Towers, Queensland, Australia. From the Company. December 14, 1895.

14652. **Argillaceous Conglomerate,** showing seam of copper ore occurring in the deposit, and which is rich in gold. Mt. Leyshon Mine, Charters Towers, Queensland, Australia. From the Company. December 14, 1895.

14653. **Photograph** of a number of nuggets of gold from the Fisk Mine, Washington, Nevada County, California. C. G. Fisk. December 14, 1895.

14654. **Feldspar**—Columnar. Mt. St. Helena, near Kellogg, Napa County, California. December 14, 1895.

14655. **Aragonite** (carbonate of calcium). From near Healdsburg, Sonoma County, California. George Madeira. December 14, 1895.

14656. **Gold Quartz,** showing free gold. Sandhurst, Victoria, Australia. December 14, 1895.

14657. **Gold Quartz.** Bukit Mas (Gold Hill) Mine, Batang Padang, Perak, Straits Settlements. Perak Museum. December 14, 1895.

14658. **Gold Quartz.** Tomoh, Kelangtung, Malay Peninsula. Perak Museum. December 14, 1895.

14659. **Silver Ore**—Argentiferous Galena. Blanda Mabok, Larut, Perak. Perak Museum. December 14, 1895.

14660. **Fluorite** (fluoride of calcium). Batang Padang, Perak. Perak Museum. December 14, 1895.

14661. **Auriferous Gravel.** Jungka Valley, Perak. Perak Museum. December 14, 1895.

14662. **Tin Ore**—"Lode Tin"—Cassiterite. Saik, Kinta, Perak. Perak Museum. December 14, 1895.

14663. **Tin Ore**—"Lode Tin"—Cassiterite. Blanda Mabok, Larut, Perak. Perak Museum. December 14, 1895.

14664. **Tin Ore**—"Lode Tin"—Cassiterite. Sorakai, Kinta, Perak. Perak Museum. December 14, 1895.

14665. **Tin Ore**—"Lode Tin"—Cassiterite. Changkat Pari, Kinta, Perak. Perak Museum. December 14, 1895.

14666. **Tin Ore**—"Lode Tin"—Cassiterite in Limestone. Kinta, Perak. Perak Museum. December 14, 1895.

14667. **Tin Ore**—"Lode Tin"—Cassiterite. Kladong, Kinta, Perak. Perak Museum. December 14, 1895.

14668. **Tin Ore**—"Lode Tin"—Cassiterite. Salak, Kuala Kangsar, Perak. Perak Museum. December 14, 1895.

14669. **Tin Ore**—"Lode Tin"—Cassiterite in Granite. Sorakai, Kinta, Perak. Perak Museum. December 14, 1895.

14670. **Tin Ore**—"Lode Tin"—Cassiterite in Ironstone. Kinta, Perak. Perak Museum. December 14, 1895.

14671. **Tin Ore**—"Lode Tin"—Cassiterite and Arsenical Pyrite in Limestone. Selama Company's Mine, Tekka, Menglembu, Kinta, Perak. Perak Museum. December 14, 1895.

14672. **Tin Ore**—"Stream Tin"—Cassiterite. Kinta, Perak. Perak Museum. December 14, 1895.

14673. **Hübnerite** (tungstate of manganese). This mineral is found with the Tin Ore in some of the alluvial washings. Tapah, Batang Padang, Perak. Perak Museum. December 14, 1895.

14674. **Pyrolusite** (bin-oxide of manganese). Perak. Perak Museum. December 14, 1895.

14675. **Rose Quartz.** Found with alluvial Tin Ore. Larut, Perak. Perak Museum. December 14, 1895.

14676. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Société des Étains de Kinta. Sanglop, Lalung, Gopeng, Kinta. Perak Museum. December 14, 1895.

14677. **Tin Ore**—Alluvial (concentrate). Melbourne Company's Mine, Chenderiang, Batang Padang, Perak. Perak Museum. December 14, 1895.

14678. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Sipiuteh, Kinta. Perak Museum. December 14, 1895.

14679. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Sandhurst Tin Mining Company's Mine, Batu Tujoh, Larut, Perak. Perak Museum. December 14, 1895.

14680. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Foo Choon's Mine, Selinsing, Lapat, Kinta, Perak. Perak Museum. December 14, 1895.

14681. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Ngah Drani's Mine, Kantan, Chumor, Kinta. Perak Museum. December 14, 1895.

14682. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Lee Nyuk's Mine, Teronoh, Batu Gajah, Kinta. Perak Museum. December 14, 1895.

14683. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Chin Chong See's Mine, Papan, Kinta. Perak Museum. December 14, 1895.

14684. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Ng Pat's Mine, Kampar, Kinta. Perak Museum. December 14, 1895.

14685. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Ho Choong's Mine, Tampoi, Papan, Kinta. Perak Museum. December 14, 1895.

14686. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Chin Yeon Yoon's Mine, Selinsing, Lapat, Kinta. Perak Museum. December 14, 1895.

14687. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Chin Kim Fuk's Mine, Teronoh, Batu Gajah, Kinta. Perak Museum. December 14, 1895.

14688. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Capt. Ah Kwi's Mine, Kamunting, Larut, Perak. Perak Museum. December 14, 1895.

14689. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Ang Ho's Mine, Kacha, Papan, Kinta. Perak Museum. December 14, 1895.

14690. **Tin Ore**—Alluvial. Wash-dirt and concentrate. Shaik Yin Fuk's Mine, Peti Bharu, Kinta. Perak Museum. December 14, 1895.

14691. **Tin Ore—Alluvial.** Wash-dirt and concentrate. Société des Étains de **Kinta's Mine,** Krani, Lahat, Kinta. Perak Museum. December 14, 1895.

14692. **Tin Ore—Alluvial.** Wash-dirt and concentrate. Malacca Company's Mine, Selibin, Ipoh, Kinta. Perak Museum. December 14, 1895.

14693. **Tin Ore** and **Hübnerite** (tungstate of manganese) in wash-dirt from Chumor, Batang Padang, Perak. Perak Museum. December 14, 1895.

14694. **Tin Ore**—Alluvial. "Tin Sand." Kinta, Perak. Perak Museum. December 14, 1895.

14695. **Tin Ore**—Alluvial. "Tin Sand." Tapah, Batang Padang, Perak. Perak Museum. December 14, 1895.

14696. **Ochre**—Yellow. From a deposit near Occidental, Sonoma County, California. December 21, 1895.

14697. **Copper Ore**—Chalcopyrite. Bolinas Mine, 1 mile east from Dogtown, on Bolinas Bay, Marin County, California. J. W. Pierson. December 21, 1895.

14698. **Gold Quartz.** Eclipse Mine, 1 mile south from Alleghany, Sierra County, California. Appel & Grant. December 21, 1895.

14699. **Gold Quartz.** Kosciusko Mine, Consol. (formerly the original Quartz Hill Mine), 6 miles northwest from Redding, on the road to Old Diggings, Shasta County, California. December 21, 1895.

14700. **Gold Quartz.** Delta Mine, Dog Creek, 5 miles west of Delta, Shasta County, California. M. B. Butler. December 21, 1895.

14701. **Feldspar**—Orthoclase. Hildreth, Madera County, California. December 23, 1895.

14702. **Dihydrite** (hydrous phosphate of copper). Ehl, near Linz, Prussia, Germany. J. Z. Davis. December 23, 1895.

14703. **Eudidymite** (silicate of glucinum and sodium). Ovre-avo, Langesund Fjord, Norway. J. Z. Davis. December 23, 1895.

14704. **Forcherite** (a variety of opal colored by orpiment). Auvergne, France. J. Z. Davis. December 23, 1895.

14705. **Gahnite** (zinc aluminate, zinc spinel). Sterling Hill, Ogdensburg, New Jersey. J. Z. Davis. December 23, 1895.

14706. **Gigantolite**—a variety of Pinite (hydrous silicate of aluminum and potassium). Tamela, Finland. J. Z. Davis. December 23, 1895.

14707. **Guaranite** (silicate of titanium and calcium). Monte Somma, Vesuvius, Italy. J. Z. Davis. December 23, 1895.

14708. **Hetaerolite** (oxide of manganese and zinc). Sterling Hill, Ogdensburg, New Jersey. J. Z. Davis. December 23, 1895.

14709. **Hiortdahlite** (silicate of zirconium, calcium, and sodium). Mittel-aro, Langesund Fjord, Norway. J. Z. Davis. December 23, 1895.

14710. **Inesite** (hydrous silicate of manganese and calcium). Jacobsberg, Sweden. J. Z. Davis. December 23, 1895.

14711. **Lillianite** (sulphide of bismuth and lead). Lillian Mine, Printerboy Hill, Leadville, Colorado. J. Z. Davis. December 23, 1895.

14712. **Lithiophilite** (phosphate of iron, manganese, and lithium). Branchville, Connecticut. J. Z. Davis. December 23, 1895.

14713. **Melanophlogite** (silica and sulphur). Giona Mine, Racalmuto, Sicily. J. Z. Davis. December 23, 1895.

14714. **Nesquehonite** (hydrous carbonate of magnesium). Nesquehoning, near Landsford, Schuylkill County, Pennsylvania. J. Z. Davis. December 23, 1895.

14715. **Rammelsbergite** (diarsenide of nickel). Freiberg, Saxony. J. Z. Davis. December 23, 1895.

14716. **Rectorite** (silicate of alumina). Garland County, Arkansas. J. Z. Davis. December 23, 1895.

14717. **Richterite**—a variety of Amphibole. Langban, Sweden. J. Z. Davis. December 23, 1895.

14718. **Sarcolite** (silicate of aluminum, calcium, and sodium). Monte Somma, Vesuvius, Italy. J. Z. Davis. December 23, 1895.

14719. **Siegenite** (sulphide of nickel and cobalt). Herz Mountains, Germany. J. Z. Davis. December 23, 1895.

14720. **Strengite** (hydrous phosphate of iron). Eleonore Mine, Geissen, Saxony. J. Z. Davis. December 23, 1895.

14721. **Turnerite**—a variety of Monazite (phosphate of cerium, lanthanum, didymium, etc.). Tavetsch, Switzerland. J. Z. Davis. December 23, 1895.

14722. **Vesbine**, on lava of 1631. Vesuvius, Italy. J. Z. Davis. December 23, 1895.

14723. **Uranothorite** (silicate of uranium and thorium). Brevig, Norway. J. Z. Davis. December 23, 1895.

14724. **Walpurgite** (arsenate of bismuth and uranium). Joachimsthal, Bohemia. J. Z. Davis. December 23, 1895.

14725. **Woodwardite** (sulphate of copper and alumina). Cornwall, England. J. Z. Davis. December 23, 1895.

14726. **Zunyite** (silicate of aluminum). Zuni Mine, Anvil Mountain, Silverton, Colorado. J. Z. Davis. December 23, 1895.

14727. **Gadolinite** (silicate of yttrium, cerium, and iron). Bluffton, Llano County, Texas. J. Z. Davis. December 23, 1895.

14728. **Jordanite** (sulph-arsenide of lead) in Dolomite. Imfeld, Bimenthal, Switzerland. J. Z. Davis. December 23, 1895.

14729. **Stilbite** (hydrous silicate of aluminum and calcium). Nova Scotia. J. Z. Davis. December 23, 1895.

14730. **Witherite** and **Bromlite** (carbonate of barium and calcium). Hexam, England. J. Z. Davis. December 23, 1895.

14731. **Erythrite** (hydrous arsenate of cobalt). Schneeberg, Saxony. J. Z. Davis. December 23, 1895.

14732. **Aragonite,** crystallized (carbonate of calcium). Frizington, Cumberland, England. J. Z. Davis. December 23, 1895.

14733. **Heulandite** (hydrous silicate of aluminum and calcium). Paterson, New Jersey. J. Z. Davis. December 23, 1895.

14734. **Chabazite** and **Heulandite** (hydrous silicate of aluminum, calcium, and potassium). Nova Scotia. J. Z. Davis. December 23, 1895.

14735. **Apophyllite** (hydrous silicate of calcium and potassium). Guanajuato, Mexico. J. Z. Davis. December 23, 1895.

14736. **Gypsum** (sulphate of calcium). Grand Rapids, Michigan. J. Z. Davis. December 23, 1895.

14737. **Bowenite** (a variety of Serpentine). Smithfield, Rhode Island. J. Z. Davis. December 23, 1895.

14738. **Gold Quartz.** Tong Mine, Clarksville, El Dorado County, California. Williams & Tong. December 26, 1895.

14739. **Gold Quartz.** Lyons Mine, Clarksville, El Dorado County, California. Charles Lyons. December 26, 1895.

14740. **Auriferous Steatite,** assaying $29 per ton, free gold. King Solomon Mine, East Fork of Trinity River, Trinity County, California. A. M. Delano. December 26, 1895.

14741. **Uraninite** (oxide of uranium). Portland, Connecticut. December 26, 1895.

14742. **Gold Quartz,** two specimens, extracted in 1895. Doss Mine, 5 miles south from Hornitos, Mariposa County, California. December 28, 1895.

14743. **Gold Quartz,** with traces of Tellurium. Old Judge Mine, Piñon Blanco Group, 3 miles north from Coulterville, Mariposa County, California. December 28, 1895.

14744. **Gold Quartz,** with Arsenical Pyrite. Toledo Mine, Tuttletown, Tuolumne County, California. December 28, 1895.

14745. **Gold Quartz,** two specimens, one from the surface, and one from depth. Caledonia Mine, Potter Ridge, 5 miles east from Grub Gulch, Madera County, California. December 28, 1895.

The vein is in chlorite schist.

14746. **Talc Schist,** with Pyrite which shows the effect of a "shearing" movement in the vein, the crystals being displaced and contorted. Gold Cliff Mine, Angels, Calaveras County, California. December 28, 1895.

14747. **Slate**—Red. Willow Glen Ranch, 3 miles northeast from Milton, Calaveras County, California. December 28, 1895.

14748. **Amphibole Rock.** Birney Ranch, 1¼ miles northeast from Angels, Calaveras County, California. December 28, 1895.

14749. **Hornblende Porphyrite.** Birney Ranch, 1¼ miles northeast from Angels, Calaveras County, California. December 28, 1895.

14750. **Quartzite.** St. Clair, Churchill County, Nevada. J. F. Halloran. December 28, 1895.

14751. **Mercury**—Native, in rich Cinnabar. Redington Mine, Knoxville, Napa County, California. A. McMillan. January 20, 1896.

14752. **Metacinnabarite** (black sulphide of mercury). Redington Mine, Knoxville, Napa County, California. A. McMillan. January 20, 1896.

14753. **Lignite** bored by Pholas. Crescent City, Del Norte County, California. P. Emetsberg. January 23, 1896.

14754. **Tooth of Elephas americanus** (cast of fossil). Found near Rio Vista, Solano County, California, by Dr. L. G. Yates. (Formerly No. 1172.) January 23, 1896.

14755. **Amauropsis alveata.** Con. Eocene fossil. Sespe Oil District, Ventura County, California. February 6, 1896.

14756. **Chlorostoma brunneum.** Phil. Miocene fossil. Sespe Oil District, Ventura County, California. February 6, 1896.

14757. **Turitella uvasana.** Con. Eocene fossil. Sespe Oil District, Ventura County, California. February 6, 1896.

14758. **Trachytriton tejonensis.** Gabb. Eocene fossil. Sespe Oil District, Ventura County, California. February 6, 1896.

14759. **Pecten hastatus.** Sby. Miocene fossil. Sespe Oil District, Ventura County, California. February 6, 1896.

14760. **Balanus estrellanus.** Con. Miocene fossil. Sespe Oil District, Ventura County, California. February 6, 1896.

14761. **Turritella hoffmanni.** Gabb. Miocene fossil. Between Tar Creek and Stony Corral Creek, Sespe Oil District, Ventura County, California. February 6, 1896.

14762. **Silver Ore.** Silver Girth Mine, 60 miles south from Needles, San Bernardino County, California. Mrs. J. Young. February 7, 1896.

14763. **Gold Quartz.** Yuba County, near Forbestown (Butte County), California. Liebhauser Bros. February 7, 1896.
Said to assay $70 per ton.

14764. **Quartz**—Cellular, with Chalcedony. Mayflower Mine, Seminole Group, 1½ miles southwest from Carters, Tuolumne County, California. February 7, 1896.

14765. **Opal.** Douglas County, Washington. M. Braverman. February 11, 1896.

14766. **Muscovite** (mica), green variety, in fine crystals. Lincoln County, North Carolina. M. Braverman. February 11, 1896.

14767. **Indian Stone Pestle.** Susanville, Lassen County, California. T. B. Sanders. February 11, 1896.

14768. **Aragonite** (carbonate of calcium)—"Onyx Marble." Two varieties, from near Zem Zem, Napa County, California. A. J. Gilbert. February 17, 1896.

14769. **Serpentine.** From the Aragonite Quarry, near Healdsburg, Sonoma County, California. February 17, 1896.

14770. **Sanidine,** in partially decomposed Trachyte. Santa Barbara, Santa Barbara County, California. E. B. Pratt. February 17, 1896.

14771. **Feldspar Crystals.** Ellsworth, Nye County, Nevada. Hon. A. T. Hatch. February 24, 1896.

14772. **Marble.** Six polished specimens of various colors, from Lindsey's Quarries, Walker River, Mono County, California. E. W. Lindsey. February 24, 1896.

14773. **Enstatite**—a variety of Pyroxene. Livermore, Alameda County, California. A. Mendenhall. February 24, 1896.

14774. **Molybdenite, Chalcopyrite,** and **Bornite,** on Granite, which is found lying horizontally, with the Molybdenite on the upper side of the layers. Skykomish River, on the line of the Great Northern Railroad, near the town of Skykomish, King County, Washington. Marcus S. Davis, per G. F. Davidson. February 27, 1896.

14775. **Auriferous Talc,** showing free gold. Red Point Mine, Washington, Nevada County, California. W. E. Yeaw. February 27, 1896.

14776. **Gold Quartz.** Mayflower Mine, 3 miles east from Nevada City, Nevada County, California. From the Company. February 27, 1896.

14777. **Copper Ore**—Chalcopyrite. Golden Eagle Mine, Spenceville, Nevada County, California. C. C. Bittner. February 27, 1896.

14778. **Talc** (hydrous silicate of magnesium). Perris, Riverside County, California. Frank Mott. February 27, 1896.

14779. **Sulphur**—Native. Geysers, Sonoma County, California. Collected in 1860, by the donor. J. Z. Davis. March 6, 1896.

14780. **Cyanite** (silicate of alumina). Carga Muchacha District, San Diego County, California. March 12, 1896.

14781. **Auriferous Vein Matter,** chiefly Hornblende and Mica, carrying about $10 per ton gold. Golden Queen Mine, Hedges, San Diego County, California. March 12, 1896.

14782. **Asbeferrite**—a variety of Tremolite. Halleck, San Bernardino County, California. W. Walker. March 12, 1896.

14783. **Silver Ore.** Said to assay $15,000 per ton. From the celebrated Emma Mine, Alta, Cottonwood Cañon, Utah. H. E. Stockwell. March 12, 1896.

14784. **Quicksilver Ore**—Cinnabar. Found in the gravel in Cañon Creek, Trinity County, California. H. E. Stockwell. March 12, 1896.

14785. **Gold in Barite** (sulphate of barium). Morning Star Mine, Big Bend, Butte County, California. W. H. Cox. March 16, 1896.

14786. **Gold Quartz,** showing free gold. West side of Kodiak Island, Alaska. Capt. Oliver Smith. March 16, 1896.

14787. **Silver Ore**—Pyrargyrite (ruby silver). Chief of the Basin Mine, Hualapai District, Arizona. A. W. Gambs. April 8, 1896.

14788. **Autunite** (phosphate of uranium and calcium). Black Hills, Dakota. J. Z. Davis. April 14, 1896.

14789. **Sphalerite** (sulphide of zinc). Iridescent variety. Alston Moor, Cumberland, England. J. Z. Davis. April 14, 1896.

14790. **Sphalerite** (sulphide of zinc) and **Calcite.** Alston Moor, Cumberland, England. J. Z. Davis. April 14, 1896.

14791. **Sphalerite** (sulphide of zinc), massive. Friedensville, Pennsylvania. J. Z. Davis. April 14, 1896.

14792. **Tschermigite** (hydrous sulphate of aluminum and ammonium). Schellenken, near Dux, Bohemia. J. Z. Davis. April 14, 1896.

14793. **Wavellite** (hydrous phosphate of aluminum). White Horse, Chester County, Pennsylvania. J. Z. Davis. April 14, 1896.

14794. **Allanite** (silicate of aluminum, cerium, iron, and calcium). Bluffton, Llano County, Texas. J. Z. Davis. April 18, 1896.

14795. **Pyrophyllite** (hydrous silicate of aluminum). Mount Tamalpais, Marin County, California. Chas. E. Hall. April 18, 1896.

14796. **Auriferous Granite.** Overall Mine, White River, Tulare County, California. F. McMillan. April 24, 1896.

14797. **Gold Quartz.** Randsburg, Kern County, California. C. A. Burcham. April 28, 1896.

14798. **Gold Quartz,** with Silver, Copper, Antimony, etc. Empire Mine, Pine Log District, Calaveras County, California. A. F. Trenschel. April 28, 1896.

14799. **Phonolite Rock** (said to be auriferous). From near Adin, Modoc County, California. L. H. Winter. April 28, 1896.

14800. **Clay.** Used in the manufacture of cement by the California Portland Cement Company, at Colton, San Bernardino County, California. April 28, 1896.

14801. **Limestone.** Used in the manufacture of cement by the California Portland Cement Company, at Colton, San Bernardino County, California. April 28, 1896.

14802. **Fluor Spar.** Used in the manufacture of cement by the California Portland Cement Company, at Colton, San Bernardino County, California. April 28, 1896.

14803. **"Raw Mix."** Ingredients mixed and ready for calcination. Used in the manufacture of cement by the California Portland Cement Company, at Colton, San Bernardino County, California. April 28, 1896.

14804. **Clinker.** Calcined cement mixture ready for grinding. Used in the manufacture of cement by the California Portland Cement Company, at Colton, San Bernardino County, California. April 28, 1896.

14805. **Cement.** Finished article, and briquettes made from it, which at the end of 28 days withstood a pull of 625 pounds to the square inch. California Portland Cement Company, Colton, San Bernardino County, California. April 28, 1896.

14806. **Gold Quartz,** with galena, and a little chalcopyrite. Boomerang Mine, Vanderbilt District, San Bernardino County, California. April 28, 1896.

14807. **Silver Ore**—Argentiferous Galena. Last Chance Mine, Slocan District, British Columbia. E. H. Tomlinson. April 28, 1896.
Lead, 75 per cent; Silver, 190 ounces per ton.

14808. **Melaphyre Rock.** Melitta, Sonoma County, California. G. Violetti. April 28, 1896.

14809. **Cinnabar** (crystallized). Altoona Mine, Trinity County, California. From the Company. May 20, 1896.

14810. **Quicksilver Ore**—Cinnabar. Altoona Mine, Trin ity County, California. From the Company. May 20, 1896.

14811. **Gold Quartz.** From a depth of 145 feet in the Royal Rock Mine, 7 miles northeast from Oro Grande, San Bernardino County, California. May 20, 1896.

14812. **Tin Stalagmite.** From a leak in the furnace at Temescal, Riverside County, California. May 20, 1896.

14813. **Salt**—Native. From a salt lake on the Carissa plains, San Luis Obispo County, California. Miss A. Eastwood. May 20, 1896.

14814. **Asbestus.** McNamara claim, Skagit County, Washington, near two railroads and navigable water. T. M. Young. May 20, 1896.

14815. **Gold Quartz.** Rich in free gold. Taylor Mine (Idlewild Mining Company), 1½ miles east from Greenwood, El Dorado County, California. E. W. Chapman. June 2, 1896.

14816. **Auriferous Arsenical Pyrite.** Oneida Mine, Dulzura District, San Diego County, California. Chas. Johnston. June 8, 1896.

14817. **Gold Quartz.** Harper Mine, Rattlesnake Valley, 12 miles east from Descanso, San Diego County, California. J. D. Harper. June 8, 1896.

14818. **Gold Quartz.** N. G. Mine, Rice District, 12 miles east from Banner, San Diego County, California. Rice Bros. June 8, 1896.

14819. **Gold Quartz.** Ohio Mine, 1 mile east from Greenwood, El Dorado County, California. C. Kinney. June 8, 1896.

14820. **Gold Quartz** and wall rock. Lucky Marion Mine, ½ mile west from Greenwood, El Dorado County, California. I. W. Nier. June 8, 1896.

14821. **Gold Quartz,** with free gold. Josephine Mine, near Volcanoville, El Dorado County, California. June 8, 1896.

14822. **Calcareous Concretions.** Hot Springs, Lassen County, California. L. L. Frost. June 8, 1896.

14823. **Gold Quartz,** with sphalerite. Eureka Mine, near Pine Valley, San Diego County, California. Thomas Noble & Sons. June 8, 1896.

14824. **Gold Quartz.** Morning Star Mine, Rice District, 12 miles east from Banner, San Diego County, California. Haight & White. June 9, 1896.

14825. **Auriferous Feldspathic Vein Matter.** Sacramento Mine, Keswick, Shasta County, California. J. Zachert. June 9, 1896.

14826. **Gold Quartz.** From three different veins in the Carson Creek Mine, 5 miles south from Angels, Calaveras County, California. The white piece shows free gold. Wm. Howell, Superintendent. June 9, 1896.

14827. **Gold Quartz,** with telluride of gold, and colored by purple fluor spar. Victor, Colorado. A. R. Cook. June 9, 1896.

14828. **Lawsonite** (silicate of aluminum and calcium). Reed Ranch. Marin County, California. Geo. L. English. June 9, 1896.

14829. **Tincal**—Native Borax. Saline Valley, Inyo County, California. Fred Conn. June 9, 1896.

14830. **Turquoise** (hydrous phosphate of aluminum). Mineral Park, Mojave County, Arizona. J. W. Haas. June 9, 1896.

14831. **Pyrargyrite** (sulph-antimonide of silver). Amalie Mine, Caliente District, Kern County, California. June 12, 1896.

14832. **Molybdenite** (sulphide of molybdenum). Green Mountain, South Fork of the San Joaquin River, Fresno County, California. F. M. Jerney. June 12, 1896.

14833. **Asbestus**—ligniform variety. Found in granite, near Auckland, Tulare County, California. June 12, 1896.

14834. **Chrysoprase** (quartz colored by nickel). From near Visalia, Tulare County, California. June 12, 1896.

14835. **Orthoclase** (potash feldspar). Long Tom Mine, Kern County, California. June 12, 1896.

14836. **Gold Quartz.** Olympus Mine, Randsburg, Kern County, California. June 12, 1896.

14837. **Gold Quartz.** Long Tom Mine, 25 miles northeast from Bakersfield, Kern County, California. June 12, 1896.

14838. **Wall Rock.** Hanging wall of Long Tom Mine, Kern County, California. June 12, 1896.

14839. **Wall Rock.** Foot wall of Long Tom Mine, Kern County, California. June 12, 1896.

14840. **Gold Quartz,** showing free gold. Gold Chief Mine, Goffs District, San Bernardino County, California. Mrs. J. Young. June 12, 1896.

14841. **Heulandite** (hydrous silicate of aluminum and calcium). Nova Scotia. J. Z. Davis. June 17, 1896.

14842. **Soda Sulphate.** Natural crust formed on the surface of the ground at Rhodes' Marsh, Esmeralda County, Nevada. J. Z. Davis. June 17, 1896.

14843. **Rubellite** (red tourmaline). Damarou's Ranch, 4 miles northwest from Mesa Grande, San Diego County, California. June 17, 1896.

14844. **Rubellite** (red tourmaline). San Jacinto Mountains, about 20 miles from San Jacinto, Riverside County, California. Frank H. Jackson. June 22, 1896.

14845. **Quartz Diorite.** Mayflower Mine, Seminole Group, 1 mile southeast from Carters, Tuolumne County, California. June 22, 1896.

14846. **Granite,** var. Graphic Granite. Mesa Grande, San Diego County, California. June 22, 1896.

14847. **Rhyolite Tuff.** Calico, San Bernardino County, California. June 22, 1896.

14848. **Chromic Iron.** T. 17 N., R. 6 W., Colusa County, California. J. P. Rathburn. June 22, 1896.

14849. **Gold Quartz.** Cardinel Mine, near Tuttletown, Tuolumne County, California. A. F. Trenschel. July 24, 1896.

14850. **Basalt Column.** Mount St. Helena, Lake County, California. E. Anderson. July 24. 1896.

14851. **Gold Quartz,** with Mariposite. Marguerite Mine, Auburn, Placer County, California. F. Deetken, Superintendent. July 24, 1896.

14852. **Gold Quartz.** Salsig Mine, near Auburn, Placer County, California. F. Deetken, Superintendent. July 24, 1896.

14853. **Gold Quartz,** with Sphalerite. Moore Mine, Ophir District, Placer County, California. July 24, 1896.

14854. **Indian Stone Pipe.** Susanville, Lassen County, California. T. B. Sanders. August 5, 1896.

14855. **Indian Arrowhead,** of Obsidian, deeply serrated and thought to be unique. Found near Yountville, Napa County, California. P. C. Peterson. August 10, 1896.

14856. **Indian Arrowheads and Spear Points,** of Obsidian. Yountville, Napa County, California. P. C. Peterson. August 10, 1896.

14857. **Indian Stone Implement,** use unknown. Yountville, Napa County, California. P. C. Peterson. August 10, 1896.

14858. **Jasper** (or petrified wood). Chalcedony Park, Arizona. J. Z. Davis. August 10, 1896.

14859. **Quartz,** var. "Porcelain Jasper." Placer County, California. J. Z. Davis. August 10, 1896.

14860. **Auriferous Pyrite.** Smith Mine, Cracker Creek District, Baker County, Oregon. Chas. Dieter. August 19, 1896.

14861. **Gold Quartz.** Ford Mine, near San Andreas, Calaveras County, California. August 19, 1896.

14862. **Gold Quartz.** From the 1000-foot level of the Gwin Mine, Calaveras County, California. August 19, 1896.

14863. **Gabbro,** showing large crystal of Diallage. Rappahannock Mine, Tuolumne County, California. August 19, 1896.

14864. **Diabase,** normal and granular. Alma Mine, Jackson, Amador County, California. August 19, 1896.

14865. **Auriferous Pyrite** and **Pyrrhotite.** From four different levels of the Le Roi Mine, Trail Creek District, near Rossland, British Columbia. L. E. Richardson. August 19, 1896.

14866. **Gold Quartz,** with a little copper. Onion Creek, 8 miles southwest from Northport, Stevens County, Washington. L. E. Richardson. August 19, 1896.

14867. **Gold Quartz.** Silver King Mine, Sheep Creek, Colville Reservation, 12 miles from Northport, Stevens County, Washington. L. E. Richardson. August 19, 1896.

14868. **Gold Quartz.** Annie B. Mine, Grouse Mountain, Colville Reservation, Washington. L. E. Richardson. August 19, 1896.

14869. **Gold Quartz.** Great Eastern Mine, Deep Creek, Stevens County, Washington. L. E. Richardson. August 19, 1896.

14870. **Gold Quartz.** Golden Chest Mine, Sheep Creek, Colville Reservation, Washington. L. E. Richardson. August 19, 1896.

14871. **Auriferous Pyrite** and **Pyrrhotite,** with Galena. Double Standard Mine, Colville Reservation, 6 miles north from Northport, Stevens County, Washington. L. E. Richardson. August 19, 1896.

14872. **Gold Quartz.** Comrade Mine, Sheep Creek, Colville Reservation, Washington. L. E. Richardson. August 19, 1896.

14873. **Silver Ore** (argentiferous galena). Iron Duke Mine, 14 miles southeast from Northport, Stevens County, Washington. L. E. Richardson. August 19, 1896.

14874. **Silver Ore** (argentiferous galena). Bullion and Lucky Jim claims, 8½ miles south from Northport, Stevens County, Washington. L. E. Richardson. August 19, 1896.

14875. **Pilinite** (hydrous silicate of aluminum and calcium). Found wrapped around a piece of rock to which one end of it is attached, in the New Almaden Mine, Santa Clara County, California. C. C. Derby. August 25, 1896.

14876. **Kroennkite** (sulphate of copper and soda). Chuquicamata, near Calama, Chile. Formula: $Cu\ SO_4 + Na\ 2SO_4 + 2H_2O$. C. Von Reischach. August 25, 1896.

14877. **Gold Quartz.** Rose Kimberly Mine, 7½ miles north from Shingle Springs, El Dorado County, California. Henry C. Langrehr, M.E. August 25, 1896.

Assay sent with specimen $10 per ton free gold and $37 in the sulphurets. Ledge 7 feet thick.

14878. **Auriferous Breccia.** Everett Mine, Lava Bed Mountains, San Bernardino County, California. (Formerly No. 11402.) August 25, 1896.

14879. **Gold Quartz,** with chalcopyrite. Golden Queen Mine, 20 miles north from Fenner, on the east side of the Providence Mountains, San Bernardino County, California. T. Sletcher. August 25, 1896.
Said to assay from $120 to $160 per ton gold.

14880. **Quartz**—Pulverulent. An excellent polishing material, almost identical with the imported "Diamentine." Found in the Aragonite deposit, worked near Healdsburg, Sonoma County, California. Geo. Madeira. August 25, 1896.

14881. **Borate of Soda** (crude borax). Saline Valley, Inyo County, California. Conn & Trudo. September 5, 1896.

14882. **Silver Ore**—Chloride. Inca Mines, Calama, Chile. C. Von Reischach. September 5, 1896.

14883. **Schwartzembergite** (oxychloride and iodide of lead). Inca Mines, Calama, Chile. C. Von Reischach. September 5, 1896.

14884. **Quicksilver Ores**—Cinnabar, with Stibnite. Rosebush and other claims of the Cinnabar Mining Company, Savona's Ferry, British Columbia. J. A. Veatch. September 15, 1896.

14885. **Copper Ore**—Chalcopyrite, carrying gold. Lyons & Python Mines, near Kamloops, British Columbia. J. A. Veatch. September 15, 1896.

14886. **Auriferous Arsenical Pyrite.** Ample group of mines, Lilloet District, British Columbia. J. A. Veatch. September 15, 1896.

14887. **Auriferous Arsenical Pyrite.** Pemberton Meadow, 50 miles west from Lilloet, British Columbia. J. A. Veatch. September 15, 1896.

14888. **Copper Ore,** assaying high in silver, with some gold. Tenderfoot Mine, Kamloops Lake, British Columbia. J. A. Veatch. September 15, 1896.

14889. **Copper**—Native, in Serpentine. Caledonia Mine, Kamloops Lake, British Columbia. J. A. Veatch. September 15, 1896.

14890. **Iron Ore**—Magnetite. Glen Mine, Kamloops Lake, British Columbia. J. A. Veatch. September 15, 1896.

14891. **Argentite** (sulphide of silver). Mollie Gibson Mine, Aspen, Colorado. L. H. Pike. September 15, 1896.

14892. **Gold Quartz.** Fair View Mine, 4 miles southwest from Havilah, Kern County, California. Hayes & McFarlan. September 25, 1896.
Assay S. M. B.—$22.53 per ton gold.

14893. **Gold Quartz.** Louisiana Mine, at a depth of 360 feet, at the junction of the foot and hanging wall veins, 9 miles east from Sonora, Tuolumne County, California. W. A. Hall. September 25, 1896.

14894. **Copper Ore**—Chrysocolla and Azurite. Copper Bullion Mine, near Manvel. San Bernardino County, California. J. W. Hixson. October 1, 1896.

14895. **Gold Quartz,** rich in free gold, assaying $1,000 per ton. St. Elmo Mine, near Randsburg, Kern County, California. D. M. Pyle. October 7, 1896.

14896. **Auriferous Vein Matter,** carrying cinnabar. "First-class ore." Sunshine Gold Mine, Sunshine, Tooele County, Utah. Victor Heikes. October 7, 1896.

14897. **Auriferous Vein Matter,** carrying cinnabar. "Second-class ore." Sunshine Gold Mine, Sunshine, Tooele County, Utah. Victor Heikes. October 7, 1896.

14898. **Sulphur,** with Orpiment, Gypsum, and Quartz. Occurs in the ore body of the Sunshine Gold Mine, near the hanging wall on the 350-foot level, Sunshine, Tooele County, Utah. Victor Heikes. October 7, 1896.

14899. **Orpiment** (sulphide of arsenic), crystallized, with sulphur. Sunshine Gold Mine, Sunshine, Tooele County, Utah. Victor Heikes. October 7, 1896.

14900. **Gold Quartz,** rich in free gold. Desert Queen (McHaney) Mine, Piñon District, 35 miles north from Indio, in the Colorado Desert, Riverside County, California. W. M. MacMillan. October 13, 1896.

Ledge 15 feet wide, between porphyry and granite. Altitude 5,000 feet above the sea.

14901. **Gold Quartz.** Drummond Mine, Iowa Hill, Placer County, California. J. J. Robbins. October 13, 1896.

14902. **Fossil Leaf**—remarkably perfect specimen. Cosumnes River, Sacramento County, California. R. H. Mahone. October 20, 1896.

14903. **Manganese Ore**—Pyrolusite. Arroyo Mocho Mine, near Livermore, Alameda County, California. Rayburn & Felis. October 20, 1896.

14904. **Sylvanite** (telluride of gold). Two specimens—raw and roasted, the latter showing abundance of free gold. Geneva Mine, Cripple Creek, Colorado. R. M. Marshall. November 9, 1896.

14905. **Geode** of Ferruginous Sandstone. Northwestern Texas. November 12, 1896.

14906. **Gold Quartz.** Pride of the West Mine, Slate Range, San Bernardino County, California. F. J. Kelly. November 12, 1896.

14907. **Gold Crystal.** Bull Creek, Mariposa County, California. November 12, 1896.

14908. **Gold Quartz.** Junction Mine, near Soulsbyville, Tuolumne County, California. November 14, 1896.

14909. **Travertine.** Three large polished slabs from the quarries of the California Travertine Company, at Bridgeport, Mono County, California. Presented by the Company. November 14, 1896.

14910. **Orthoceras** Sp.? Carboniferous fossil. Coal Measures, Danville, Illinois. November 14, 1896.

14911. **Macrochilina** Sp.? Carboniferous fossil. Coal Measures, Danville, Illinois. November 14, 1896.

14912. **Gold Quartz.** Sheba Mine, near Barberton, De Kaap District, South African Republic. A. E. Roberts. November 21, 1896.

14913. **Gold Quartz.** Very rich in free gold. From the Schwartz Kopjes, near Barberton, De Kaap District, South African Republic. A. E. Roberts. November 21, 1896.

14914. **Auriferous Conglomerate.** Fereira Mine, Johannesburg, South African Republic. A. E. Roberts. November 21, 1896.

14915. **Auriferous Conglomerate.** City and Suburban Mine, Johannesburg, South African Republic. A. E. Roberts. November 21, 1896.

14916. **Hornblende Schist.** Merced River, below the Yosemite Valley, Mariposa County, California. M. Hutchings. November 21, 1896.

14917. **Trilobites.** Calymene niagarensis. Silurian fossils. Chicago Drainage Canal, Lemont, Illinois. December 7, 1896.

14918. **Orthis occidentalis.** Silurian fossil. Hudson River Group, Cincinnati, Ohio. December 7, 1896.

14919. **Pyrite** (bisulphide of iron). From the Lower Carboniferous slates, Blue River, Colorado. F. C. Mathyas. December 7, 1896.

14920. **Ancient Aztec or Indian Pottery.** From the cliff dwellings on the Mancos River, Colorado. F. C. Mathyas. December 7, 1896.

14921. **Silver Ore.** Very rich in silver and bismuth, with some antimony. Yankee Girl Mine, San Juan, Colorado. F. C. Mathyas. December 7, 1896.

14922. **Belemnites densus.** Jurassic fossil (Jura Trias). Wyoming. F. C. Mathyas. December 7, 1896.

14923. **Gold Quartz,** rich in free gold. Harrison Gulch, Section 3, T. 29 N., R. 10 W., about 45 miles southwest from Redding, Shasta County, California. H. B. Gaston. December 14, 1896.

14924. **Quartz,** which appears to be the rim rock of the gravel channel in the Eureka Consolidated Drift Mine, Forest Hill Divide, Placer County, California. F. Chappellet. December 14, 1896.

The tunnel has penetrated this quartz 450 feet to date without finding the channel.

14925. **Mineral Paint,** chiefly iron oxide. From F. Boehmer's Paint Mine, Laundry Farm, Alameda County, California. A. Bardet. December 14, 1896.

14926. **Marble**—St. Martin's. Bavaria, Germany. A. L. Seager. December 22, 1896.

14927. **Serpentine.** From Dr. Boyesen's Quarry, Drytown, Amador County, California. A. L. Seager. December 22, 1896.

14928. **Gold Quartz.** Philadelphia Mine, Brownsville District, El Dorado County, California. J. B. Polk. December 22, 1896.

14929. **Iron Ore**—Limonite, of good quality. Capay, Yolo County, California. B. Orengo. January 9, 1897.

14930. **Gold Quartz,** showing free gold. Fortuna Mine, 15 miles south from Blaisdel Station, Arizona. C. D. Lane. January 9, 1897.

14931. **Gold Quartz.** Esperanza Mine, 4 miles from Glencoe, Calaveras County, California. From the Company. January 9, 1897.

14932. **Gold Quartz.** Mills 5 ounces per ton. Railway Line, Temora, New South Wales. January 9, 1897.

14933. **Gold Quartz.** North Boulder Mine, Kalgoorlie, West Australia. Dr. John Rabe and A. G. Holroyd. January 9, 1897.

14934. **Auriferous Vein Matter.** Hamman's Brown Hill Mine, Coolgardie, West Australia. Dr. John Rabe and A. G. Holroyd. January 9, 1897.

14935. **Auriferous Galena in Quartz.** Coolgardie, West Australia. Dr. John Rabe and A. G. Holroyd. January 9, 1897.

14936. **Gold Quartz,** with free gold and **Telluride.** Australia Mine, Kalgoorlie, West Australia. Dr. John Rabe and A. G. Holroyd. January 9, 1897.

14937. **Auriferous Calcite,** with free gold and **Telluride.** Block 45 Mine, Kalgoorlie, West Australia. Dr. John Rabe and A. G. Holroyd. January 9, 1897.

14938. **Gold Quartz.** Melbourne United Mine, Bulong, East Coolgardie District, West Australia. Dr. John Rabe and A. G. Holroyd. January 9, 1897.

14939. **Auriferous Limonite.** Mount Lyell, Tasmania. Dr. John Rabe and A. G. Holroyd. January 9, 1897.

14940. **Auriferous Vein Matter.** Freemantle Extended Claim, Coolgardie, West Australia. Dr. John Rabe and A. G. Holroyd. January 9, 1897.

14941. **Gold Quartz.** Rand Mine, Randsburg, Kern County, California. W. H. Wilton. January 9, 1897.

14942. **Gold Quartz.** Garlock, Kern County, California. W. H. Wilton. January 9, 1897.
Said to assay $10 per ton.

14943. **Fossil Leaf.** From a depth of 150 feet in a hydraulic mine, Placer County, California. A. J. Dolman. January 19, 1897.

14944. **Quicksilver Ore,** with a peculiar hydrocarbon mineral. Abbott Mine, Lake County, California. Ph. Rearden, Superintendent. January 26, 1897.

14945. **Gold Quartz.** Eureka Mine, Berner's Bay, Alaska. L. G. Bach. January 26, 1897.

14946. **Gold Quartz.** Josephine Mine, Salmon Creek, 3 miles from Juneau, Alaska. L. G. Bach. January 26, 1897.

14947. **Gold Quartz.** Edwards Creek, 7 miles from the Alaska-Treadwell Mine, Douglas Island, Alaska. L. G. Bach. January 26, 1897.

14948. **Gold Quartz.** Horrible Mine (220 feet in tunnel), Berner's Bay, Alaska. L. G. Bach. January 26, 1897.
Assay with specimen, $46 per ton.

14949. **Gold Quartz.** Ivanhoe Mine, Berner's Bay, Alaska. L. G. Bach. January 26, 1897.
Assay with specimen, $104 per ton.

14950. **Auriferous Pyrite.** Great Republic Mine, Little Sheep Creek, Colville Reservation, 7 miles northwest from Northport, Stevens County, Washington. L. E. Richardson. January 26, 1897.

14951. **Silver Ore** (argentiferous galena). Brass Monkey Mine, Cedar Creek, 8 miles north from Northport, Stevens County, Washington. L. E. Richardson. January 26, 1897.

14952. **Auriferous Pyrite.** War Eagle Mine of the Commonwealth Gold Mining Company, Tulu Mountain, Kettle River, Colville Reservation, 20 miles northwest from Marcus, Stevens County, Washington. L. E. Richardson. January 26, 1897.

14953. **Auriferous Pyrite.** Joe Y Mine, Sunnyside Group, 4 miles west from Marcus, Stevens County, Washington. L. E. Richardson. January 26, 1897.

14954. **Auriferous and Argentiferous Chalcopyrite.** Silver King Mine, Chewelah, Stevens County, Washington. L. E. Richardson. January 26, 1897.
Assay, with sample: Gold, $86; Silver, 72 ounces per ton; Copper, 40 per cent.

14955. **Auriferous Pyrite.** Solomon Levi Mine, Little Goosymos Creek, 8 miles west from Nelson, Stevens County, Washington. L. E. Richardson. January 26, 1897.

14956. **Copper Ore.** Little Giant Mine, Sand Creek, Kettle River, 25 miles northwest from Marcus, Colville Reservation, Washington. L. E. Richardson. January 26, 1897.

14957. **Auriferous Marcasite.** Congress Mine, Arizona. W. H. Storms. January 27, 1897.

14958. **Aragonite** (carbonate of calcium). Three cut and polished specimens from a quarry near Bingham City, Utah. F. C. Mathyas. January 27, 1897.

14959. **Gypsum** (sulphate of calcium). Victor, San Bernardino County, California. Jas. Curtner. February 9, 1897.

14960. **Galena** (sulphide of lead) in gypsum. Barstow, San Bernardino County, California. Ferd. Egbert. February 9, 1897.

14961. **Gold Quartz.** Aravaca District, Pima County, Arizona. Joseph Danker. February 9, 1897.
Said to assay $100 per ton.

14962. **Gold Quartz.** Coplen Mine, Hall Creek, British Columbia. L. E. Richardson. February 9, 1897.
Said to assay $160 per ton.

14963. **Auriferous Pyrite.** Mayflower Mine, Rossland, British Columbia. L. E. Richardson. February 9, 1897.

14964. **Auriferous Pyrite.** Iron Mask Mine, Rossland, British Columbia. L. E. Richardson. February 9, 1897.

14965. **Silver Ore** (argentiferous galena). Slocan Star Mine, Slocan District, British Columbia. A. O. Decker. February 9, 1897.

14966. **Silver Ore.** Whitewater Mine, Slocan District, near Sandon, British Columbia. L. E. Richardson. February 9, 1897.

14967. **Auriferous Vein Matter**—Ochrous earth. From the quartz vein in the Blue Bell Mine, at a depth of 160 feet, Hayden Hill, Lassen County, California. Ed. B. Preston. February 23, 1897.
Assay by Selby, $7,500 per ton gold.

14968. **Gold Quartz,** showing free gold, copper, and iron pyrites, and galena. Stepp's Vein, Cadmus Mine, Nevada City, Nevada County, California. Chas. Kahl, Superintendent. February 23, 1897.

14969. **Gold Quartz,** rich in free gold. Cadmus Mine, Nevada City, Nevada County, California. Chas. Kahl, Superintendent. February 23, 1897.

14970. **Gold Quartz,** with pyrite and galena. Harper's Vein, Cadmus Mine, Nevada City, Nevada County, California. Chas. Kahl, Superintendent. February 23, 1897.

14971. **Bravaisite** (hydrous silicate of alumina, iron, manganese, and potassium). Noyant, Allier, France. J. Z. Davis. February 23, 1897.

14972. **Bieberite** (hydrous sulphate of cobalt). Bieber, Hesse, Germany. J. Z. Davis. February 23, 1897.

14973. **Cacoclasite** (quartz, apatite, and calcite). Pseudomorphous. Wakefield, Quebec, Canada. J. Z. Davis. February 23, 1897.

14974. **Berzellite** (arsenate of lime, magnesia, and manganese). Langban, Sweden. J. Z. Davis. February 23, 1897.

14975. **Cryophyllite**—a variety of Zimwaldite (silicate of aluminum, iron, potassium, lithium, etc.). Rockport, Massachusetts. J. Z. Davis. February 23, 1897.

14976. **Ralstonite** (hydrous fluoride of aluminum and sodium). Ivigtut, Arksuk Fjord, Greenland. J. Z. Davis. February 23, 1897.

14977. **Riebeckite** (silicate of iron and sodium). Mynydd Mawr, Wales. J. Z. Davis. February 23, 1897.

14978. **Bayldonite** (hydrous arsenate of lead and copper). Cornwall, England. J. Z. Davis. February 23, 1897.

14979. **Leuctenbergite**—a variety of Clinochlore (hydrous silicate of aluminum and magnesium). Zlatoust, Ural Mountains, Siberia. J. Z. Davis. February 23, 1897.

14980. **Diaspore** and **Dillnite** (hydrate of aluminum and silicate of aluminum). Dilln, near Schemnitz, Hungary. J. Z. Davis. February 23, 1897.

14981. **Auriferous Vein Matter,** with copper and iron pyrites. Mesquite Mountain, 3 miles northwest from Garlock, Kern County, California. F. Adams. February 29, 1897.

14982. **Gold Quartz.** Syndicate Mine, Potter Ridge, Madera County California. Jno. S. Wilbur. February 29, 1897.
Assay by Luckhardt, $78 gold per ton.

14983. **Silver Ore.** Rich ore showing Pyrargyrite (ruby silver). San Luciano shaft, of the Negociacion Minera Barones y Vicochea, Zacatecas, Mexico. Thos. J. Barbour. March 9, 1897.

14984. **Silver Ore** (argentiferous galena). Alma Mine, Fish River, West Kootenay, British Columbia. R. J. Kirkwin. March 9, 1897.

14985. **Gold Quartz,** very rich in free gold and tellurides of gold and silver. Stanislaus shaft of the Melones Consolidated Mining Company, Robinsons Ferry, Calaveras County, California. Ralston & Grayson. March 9, 1897.

14986. **Mercury**—Native, and Rich Cinnabar. Mirabel Mine, near Middletown, Lake County, California. C. C. Derby. March 9, 1897.

14987. **Gold Quartz,** showing free gold. Yellow Aster Mine, Randsburg, Kern County, California. J. M. Kelley. March 18, 1897.

14988. **Gold Quartz,** showing free gold. Norwegian Mine, Jackass Hill, near Robinsons Ferry, Tuolumne County, California. From the Company, per Wm. C. Murdock. March 18, 1897.

14989. **Gold Quartz**, showing free gold in a remarkably soft condition. From near the surface at the Norwegian Mine, Jackass Hill, near Robinsons Ferry, Tuolumne County, California. From the Company, per Wm. C. Murdock. March 18, 1897.

14990. **Gold Quartz,** with "wire gold." Lucky Boy Mine, Blue River District, Lane County, Oregon. Emile Quarré. March 23 1897.

14991. **Gold Quartz.** Santiam Mines, Santiam District, Linn County, Oregon. Emile Quarré. March 23, 1897.

14992. **Gold Quartz.** From the 300-foot level, and from croppings of the Lucky Boy and Keystone Mines, Blue River District, Lane County, Oregon. Emile Quarré. March 23, 1897.

14993. **Gold Quartz.** Bohemia Mine, Bohemia District, Douglas County, Oregon. Emile Quarré. March 23, 1897.

14994. **Quicksilver Ore**—Cinnabar in Serpentine with Pyrite. Corona Mine, Pope Valley, Napa County, California. March 27, 1897.

14995. **Martite,** a variety of Hematite. Thomas Mountains, Utah. March 30, 1897.

14996. **Chenevixite** (hydrous arsenate of copper and iron). Carissa Mine, Tintic, Utah. March 30, 1897.

14997. **Orpiment** (sulphide of arsenic), in crystals. Mercur Mine, Mercur, Utah. March 30, 1897.

14998. **Olivenite** (hydrous arsenate of copper). Eureka Hill Mine, Tintic, Utah. March 30, 1897.

14999. **Tiemanite** (selenide of mercury). Marysvale, Utah. March 30, 1897.

15000. **Sphalerite** (sulphide of zinc), in octahedral crystals. Jordan Mine, Bingham, Utah. March 30, 1897.

APPENDIX TO VOL. 5

OF THE

CATALOGUE OF THE MUSEUM

OF THE

CALIFORNIA STATE MINING BUREAU.

APPENDIX.

677. **Crepidula grandis.** Midd. Quaternary fossil. San Mateo County, California. J. Z. Davis.

792. **Lytoceras argonautum.** Cretaceous fossil. Cottonwood, Shasta County, California. L. Wellendorf.

964. **Olivella boetica.** Carp.
Nassa perpinguis. Hinds.
Amycla carinata. Hinds.
Nassa mendica, var. **Cooperi.** Forbes. Quaternary fossils. Colorado Desert, San Diego County, California. Albert T. Lee.

2252. **Cryptomia californica.** Conrad. Tertiary fossil. Martinez, Contra Costa County, California. J. Z. Davis.

3011. **Ammonites remondii.** Cretaceous fossil. Shasta County, California. J. W. Garden.

3731. **Pecten stearnsi.** Pliocene (?) fossil. From top of hill, 1,500 feet above the sea level, 1¾ miles southwest from the Long Tom Mines, Kern County, California. Charles Kelly.

4048. **Fossil Cycad,** in schist. River Ain, France.

4176. **Cerithidea californica.** Hald. Quaternary fossil. Alviso, Santa Clara County, California. Edw. A. T. Gallagher.

4730. **Cardium meekianum.** Gabb. Quaternary fossil. Santa Cruz County, California. J. Z. Davis.

5575. **Psephis tantilla.** Gould. Quaternary fossil. San Pedro, Los Angeles County, California. Mrs. A. E. Bush.

5576. **Lunatia lewisi.** Gould. Quaternary fossil. San Pedro, Los Angeles County, California. Mrs. A. E. Bush.

5577. **Solariella cidaris.** Adams. Quaternary fossil. San Pedro, Los Angeles County, California. Mrs. A. E. Bush.

5582. **Mitra maura.** Swainson. Quaternary fossil. San Pedro, Los Angeles County, California. Mrs. A. E. Bush.

5585. **Margarita lirulata.** Carp. Quaternary fossil. San Pedro, Los Angeles County, California. Mrs. A. E. Bush.

5586. **Pecten caurinus.** Gould. Quaternary fossil. San Pedro, Los Angeles County, California. Mrs. A. E. Bush.

5589. **Dentalium hexagonum.** Sow. Quaternary fossil. San Pedro, Los Angeles County, California. Mrs. A. E. Bush.

5805. **Pecten expansus.** Dall. Quaternary fossil. Mount Hamilton, Santa Clara County, California. Mrs. A. E. Bush.

5808. **Fusus kobelti.** Dall. Quaternary fossil. San Pedro, Los Angeles County, California. Mrs. A. E. Bush.

5810. **Surcula tryoniana.** Gabb. Quaternary fossil. San Pedro, Los Angeles County, California. Mrs. A. E. Bush.

5814. **Turcica caffea.** Gabb. Quaternary fossil. San Pedro, Los Angeles County, California. Mrs. A. E. Bush.

8981. **Vertebræ of a Saurian** (mosasaur). Cretaceous fossil. Hunt County, Texas. H. L. Pittard.
Found in a railroad cutting, 12 feet below the surface.

9013. **Crepidula** (cast). Pescadero, San Mateo County, California. Dr. R. T. Maxwell.

9114. **Lytoceras batesii.** Gabb. Cretaceous fossil. Shasta County California.

9601. **Orthoceras** Sp.? Lower Silurian fossil. Chazy Limestone, Isle La Motte, Lake Champlain, Vermont. J. Z. Davis.

9602. **Macluria magna.** Less. Lower Silurian fossil. Chazy Limestone, Isle La Motte, Lake Champlain, Vermont. J. Z. Davis.

11153. **Cardita planicosta.** Eocene fossil. Umpqua River Basin, Oregon. D. C. Stone.

11526. **Orthoceras** Sp? From an island off the coast of Sweden. J. Anderson.

11529. **Arca microdonta.** Cretaceous fossil. San Juan, San Benito County, California. Hon. Thos. Flint.

11898. **Chlorostoma ligulatum.** Menke. Quaternary fossil. San Joaquin Bay, Orange County, California.

11899. **Nassa mendica.** Gould. (var. **Cooperi,** Forbes). Quaternary fossil. San Joaquin Bay, Orange County, California.

12320. **Axinea patula.** Conrad. Quaternary fossil. Santa Rosa Island, Santa Barbara County, California.

12322. **Murex radix.** Linne. var.? Pliocene fossil. Santa Rosa and San Miguel Islands, Santa Barbara County, California.

12328. **Ostrea heermanni.** Conrad. Pliocene fossil. San Miguel Island, Santa Barbara County, California.

12426. **Pecten caurinus?** Gould. Ventura County, California.

12632. **Mactra** Sp.? Pliocene fossil. Boulder Creek, Humboldt County, California.

12638. **Yoldia impressa.** Conrad. Pliocene fossil. Boulder Creek, Humboldt County, California.

12649. **Solen** Sp.? Pliocene fossil. Scotia, Humboldt County, California.

12807. **Schloenbachia inflata.** Gabb. Cretaceous fossil. Peterson Ranch, near Sites, Colusa County, California. P. R. Peterson. January 18, 1892.

12808. **Desmoceras colusaense.** Nov. Sp. Cretaceous fossil. Peterson Ranch, near Sites, Colusa County, California. P. R. Peterson. January 18, 1892.

12879. **Mitra maura.** Swainson. Quaternary fossil. From the oil field in Los Angeles City, California.

12885. **Periploma discus.** Stearns. Pliocene fossil. First and Olive streets, Los Angeles City, California.

12886. **Modiola ornata.** Gabb. Cretaceous fossil. Point Loma, San Diego County, California.

12887. **Semele decisa.** Conrad. Quaternary fossil. From the oil field in Los Angeles City, California.

12890. **Placunanomia macroschisma.** Desh. Quaternary fossil. From the oil field in Los Angeles City, California.

12891. **Nerita triangulata.** Gabb. Cretaceous fossil. California Coal Mine, Coalinga, Fresno County, California.

12892. **Turritella** Sp.? Cretaceous fossil. Marysville Buttes, Sutter County, California.

12931. **Axinea patula.** Conrad. Miocene fossil. Pyramid Mountain, Greenhorn Mountains, Kern County, California.

622.06 .C153s v.46, pt.3.4 map C.1
Aggregate resource sectors: No
Stanford University Libraries
3 6105 031 147 155

C 15
v.5
1890.
BRAA

DATE DUE

STANFORD UNIVERSITY LIBRARI
STANFORD, CALIFORNIA
94305